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In the suit brought by the Carnegie Steel Company against the Cambria Iron Company, which involved the validity of the Jones mixer patent and its use in making steel, the United States Supreme Court has ordered a re-argument, although the case was very fully argued some time ago. No reason is given for this order, but it has been suggested that the court is divided in opinion, and the justices, or some of them, want further information on some points connected with patent. The term is now so far advanced that the arguments can hardly be heard before adjournment, and the suit will go over to the December term. The final decision, in that event, may be postponed for nearly a year.

While the total value of exports of merchandise from the United States decreased from $117,377,818 in February, 1900, to $110,998,367 in February, 1901, the falling off in exports of manufactures was also large. The value of these was $34,226,128 in February of last year and $30,302,592 in February of this year; the decrease being $3,923,536, or 11.5 per cent. These imports formed this year only 27.3 per cent. of the total, as compared with 29.2 per cent. last year. In part this was due to a generally lower range of values; but to a greater extent to the general depression of trade abroad. In some departments also there were special causes, a prominent one being the disturbed condition of China, which has almost stopped our trade with that country for the time being.

The production of metals in Colorado—not including iron—for the year 1900 is given by the report of Mr. H. A. Lee, commissioner of mines, as follows, the metals being valued at their current prices:

	1899.	1900.	Changes.
Gold	$26,508,676	$28,762,036	I. $2,253,360
Silver	13,771,731	12,488,775	D. 1,282,956
Lead	6,170,766	7,770,196	I. 1,599,430
Copper	1,869,170	1,293,012	D. 576,158
Totals	$48,320,343	$50,314,019	I. $1,993,677

This is the value of the metals alone, and to this is to be added coal and iron ore, besides stone and other minor products. Colorado takes high rank as a mineral producing region, with almost unlimited possibilities for the future.

The exports of iron and steel in February are valued by the Bureau of Statistics of the Treasury Department at $7,936,665, being less by $612,492, or 7.2 per cent. than in February, 1900. The reduction, however, was more in values than in quantities, as we find increases in many of the staple articles. Thus, while there was only a slight gain in pig iron, there were large increases in billets, bars, sheets,, steel rails and structural steel; while in wire there was only a very slight falling off. The only important articles showing a decrease were nails. There was some decrease in machinery exported, but here again it seems to have been in values rather than in quantities. Considering the depressed condition of the iron markets abroad, the exports of iron and steel make a remarkably good showing so far this year.

The exports of iron and steel in February were 26.2 per cent. of our total exports of manufactures for the month.

The United States Steel Corporation has completed its organization, as noted in another column, and starts out with its capital fixed at $550,000,000 preferred and $550,000,000 common stock, besides the $304,000,000 bonds issued for the purchase of the Carnegie interests. The latest additions to the consolidation are the American Bridge Company and the Lake Superior Consolidated Mines. Rumor, of course, mentions other companies as likely to be taken in, especially the Republic Iron and Steel Company, and the Tennessee Coal, Iron and Railroad Company. In the case of the last-named company, the report has been officially denied.

It is perhaps significant that in filing the amended charter and notice of the increase of capital stock in New Jersey, the company also took advantage of an amendment to the corporation law recently passed. In accordance with this provision and with the company's charter, as amended, the sales and purchases of property and the issue of securities hereafter can be authorized by a vote of two-thirds of the stockholders present at any meeting—not by a vote of two-thirds of all the stockholders, as the law formerly required. The difference is important.

Exports of coal from the United States in February were 530,644 tons, being less than those of February, 1900, by 132,236 tons, or 19.9 per cent. Nearly all of the reduction was in exports to Canada. For the two months ending February 28th the total exports were as follows:

	1900.	1901.	Changes.	Per ct.
Anthracite	211,159	312,108	I. 100,949	47.8
Bituminous	1,048,455	830,898	D. 217,557	20.7
Total coal	1,259,614	1,145,006	D. 116,608	9.3
Coke	70,558	57,006	D. 13,552	19.0
Totals	1,330,172	1,200,012	D. 130,160	9.8

Canada took this year 765,327 tons, or 67 per cent. of the total, though

there was some decrease in the shipments. The exports to Europe were 63,300 tons this year, or 18,429 tons more than was reported for the two months last year. Of these exports in 1901 a total of 28,828 tons went to France, most of the rest going to Russia and Germany. To Mexico, the West Indies and South America there was very little change.

Assuming that coal production in this country is now at about the same rate as a year ago—which is probably the case—our exports for the two months this year amounted only to 2.7 per cent. of the production. In the present state of the European coal markets an increase is hardly to be expected.

The decision in the American Smelting and Refining case rendered by the New Jersey Court of Errors, as briefly noted in our columns last week, reverses the finding of the Vice-Chancellor, and continues the injunction against the issue of additional stock for the purpose of purchasing the Guggenheim plants. The decision is not a final one, but is simply to the effect that further investigation is required. The allegations made by the contesting stockholders represented that $45,000,000 of new stock was to be issued in exchange for properties which had not been properly appraised, nor appraised at all, and whose actual value was barely one-fourth of the sum represented by the proposed new stock. These statements were not verified; but the complaining stockholders asked the privilege of an opportunity to provide verification; and in substance the Court of Appeals says that the allegations raise issues which require examination. The applicants for the injunction must be given an opportunity to present their evidence, and the case must be decided on its merits. Substantially the opinion of the court is that corporations in making stock issues must not exceed the value of property to be acquired; and it is directed that evidence may be taken to determine what the value is.

This decision seems to be a reasonable one, and is in accordance with a plain business principle. It shows, also, that the New Jersey courts have more inclination to protect the rights of minority stockholders than they have usually been credited with. Without expressing an opinion in the present case, we can safely say that it is only just to give the protesting stockholders a right to present their case fully, with such evidence as they may have to support it.

TENNESSEE COAL MINES IN 1900.

The coal production of Tennessee during the year 1900, as given by the report of the State Inspector of Mines, Mr. R. A. Shiflett, was the largest ever made in that State. The total was 3,904,048 short tons, the total estimated value of which was $4,294,928, or an average of $1.10 per ton at mine. The production for 12 years past has been as follows, in short tons:

1899	1,925,689	1893	1,902,258	1897	2,888,849
1890	2,169,585	1894	2,180,879	1898	2,084,748
1891	2,413,678	1895	2,535,644	1899	3,763,134
1892	2,092,064	1896	2,663,714	1900	3,904,048

The years 1899 and 1900 showed a remarkable increase, which was largely due to the prosperity of the iron interests, which control a large part of the coal production of the State.

The report gives the number of employees in coal mines at 8,691, so that the average quantity of coal mined was 449 tons per employee. As the average number of days worked in coal mines during the year was 230, the average result per man per day was 1.95 tons.

Among the miscellaneous statistics we find that 14 new shafts were opened during the year, while 100 mines were active, making a total of 114 mines in the State at the close of the year. There were 1,008 mules and horses employed in the collieries, of which 748 were used in haulage underground. The explosives used were 48,932 kegs of black powder and 19,571 lbs. of dynamite. This shows an average of 79.8 tons of coal mined per keg of powder used.

The coke statistics show that last year 946,597 tons of coal, or 24.2 per cent. of the total production, were used in making coke. The output of coke was 494,438 short tons, being 54,281 tons, or 12.3 per cent., greater than in 1899. The average yield of coke fell off considerably, however, being only 52.2 per cent., against 57 per cent. in the preceding year. That is, it took 1.92 tons of coal, on an average, to make one ton of coke. There were 13 plants in operation last year, having a total of 1,923 ovens, while 50 new ovens were under construction at the close of the year. The average value of this coke at the oven is given at $2.40 per ton.

The accidents in coal mines reported for the year are given in the table below. As the report gives the maximum number of employees, but not the average number, the deductions are necessarily based on the number stated:

	Fatal.	Non-fatal.	Total.
Number of casualties	10	34	44
Average per 1,000 employees	1.15	3.91	5.06

No less than 9 out of the 10 fatal accidents resulted from falls of coal or rock, the remaining one being due to a blast. Of the non-fatal accidents 24 were caused by falls of coal or rock and 5 by mine cars.

In addition to the coal mine accidents there were 3 deaths in the metal mines of the State during the year. These were all in the copper mines of the Ducktown District, two being caused by falling down shafts and one by a fall of rock. The total number of accidents in 1900 was the smallest reported in any of the past 10 years.

MINING DIVIDENDS IN THE FIRST QUARTER OF 1901.

The dividend disbursements by the mining and metallurgical industries of the United States during the three months ending March 31st, this year, as collected by the "Engineering and Mining Journal," were very heavy, 124 companies having paid the large sum of $39,960,042. This total would be materially increased were it possible to include the dividends paid by private and close corporations that do not report.

In the first quarter of this year dividends amounting to $8,125,770, or 20.4 per cent. of the total given above, were paid by 69 gold, silver, copper, lead, zinc and quicksilver mining companies; $20,408,445, or 51.1 per cent. by 20 petroleum and natural gas companies; $8,991,642, or 22.6 per cent. by 19 iron and steel companies producing their own raw material; $1,530,532, or 3.9 per cent. by 10 coal and coke companies, and $903,653 by 6 chemical and mineral companies.

The list of dividend-paying metal mines is steadily increasing, the leading dividend payers being the copper mines, which disbursed $4,385,928, or over one-half of the total paid by all mines. The Boston & Montana and the Amalgamated Copper companies have each declared a quarterly dividend of $1,500,000, but their annual rate is widely different; the former pays 160 per cent. on its capital stock of $3,750,000, and the latter only 8 per cent. on $75,000,000. The Amalgamated Company owns no mines directly, and its profits are derived from its share holdings in other companies, so that its payments are a duplication. In Michigan the Quincy and Atlantic together paid $380,000, while in Arizona, the Arizona Copper Company, a Scotch concern, disbursed $421,153, which is equal to 45 per cent. per annum on its ordinary share-capital. In Arizona there are also the United Verde, the Copper Queen and a few other companies that pay large dividends, but they do not announce them, as their shareholders are comparatively few in number. Many of the gold, silver and lead mines make regular monthly payments, and a few declare quarterly. A leading gold mine in the country is the Homestake of South Dakota, which pays monthly a regular and an extra dividend of 25 cents each, and has paid in the quarter $315,000, being at the rate of 6 per cent. annually on its $21,000,000 capital stock. The Silver King Gold Mine of Utah holds second place with $275,000, which makes its annual dividend rate 36 per cent. on a $3,000,000 share-capital. The Daly-West, also of Utah, and with the same capitalization as the Silver King has increased its dividend rate to 18 per cent. per annum from 16.5 per cent. in 1900. South Swansea in the same State after an absence of over a year re-entered the dividend list in March with a small disbursement. This company paid since its incorporation $172,500, or 115 per cent. on a capital stock of $150,000; it increased its capital to $300,000 in March, this year. Colorado, the leading gold producing State, has numerous dividend payers, notably in the Cripple Creek District, where 18 mines paid $885,007 this year. The present tendency in this district is to consolidate the smaller properties so as to work them more economically and put them on a dividend-paying basis. The Portland Gold Mining Company, of Cripple Creek, holds the lead in this State, having paid $180,000, which is equal to 24 per cent. per annum on its $3,000,000 capital stock. Stratton's Independence, which is largely controlled abroad, paid $120,001, or at the rate of 10 per cent. per annum on its issued capital of $5,000,000. The Home Mine of Leadville, which paid in less than a year 250 per cent. in dividends on its old capital of $50,000, has increased this capital to $2,000,000 in order to pursue larger operations on the property. In Idaho the Empire State-Idaho Company raised its capital stock from $1,000,000 to $6,000,000 after acquiring the silver-lead mine of the Buffalo Hump Company, thus putting the stock on a 12 per cent. basis this year, whereas in 1900 it paid 36 per cent. The Buffalo Hump Company on the other hand reduced its $3,000,000 share-capital to $1,000,000, and will work only a gold mine hereafter. The American Smelting and Refining Company paid $479,500 on its preferred stock, which is equal to 7 per cent. per annum. The Montana Ore Purchasing Company, of Montana, has paid a regular quarterly dividend of 4 per cent., and an extra of 8 per cent. ($240,000), which puts its stock on a 48 per cent. basis. The National Lead Company, with mines in the soft-lead district of Missouri, paid $260,820 on its preferred stock, being at the rate of 7 per cent. annually; its profits are from the manufacturing side of its business chiefly. The Missouri-Kansas zinc properties are not paying as regularly as the promoters promised on incorporation, owing to the heavy drop in the market price of the ore. Therefore the $432,477 credited as dividends by zinc mines came chiefly from the New Jersey Zinc Company. This

company's $10,000,000 capital stock is on a 6 per cent. annual basis, but the February dividend was 4 per cent. ($400,000) in order to prepare the books for the proposed consolidation with the General Chemical Company. Two quicksilver mines, the Napa and the New Idria of California, together paid $30,000; the former being at the rate of nearly 6 per cent., and the latter 16 per cent. annually on their share-capitals of $700,000 and $500,000, respectively.

In the industrial list the biggest dividends were paid by the combinations, usually at the rate of 7 per cent. annually on the preferred shares, and occasionally something on the common stock. The Standard Oil Company takes the lead with $19,500,000, which is equal to 80 per cent. per annum on its outstanding capital stock, but only 10 per cent. on the market value of the shares on April 1st. The other petroleum and natural gas companies are credited with having paid $908,445, and of this amount California oil companies paid $410,284, led by the California Oil and Gas Company, which contributed $250,000. The Philadelphia Company, which has natural gas properties in Pennsylvania and West Virginia, has paid $284,361, of which $184,402 went to the common stockholders and $99,959 to the preferred.

The iron and steel dividends have come chiefly from the concerns that are now being consolidated into the United States Steel Corporation. The dividends paid by 8 of these constituent companies (not including the Carnegie Steel Company) amounted since their incorporation to $46,827,671. In the quarter under review the leading payer was the Federal Steel Company, with $3,123,129, of which $2,324,215 went to the common stockholders, and the remainder to the preferred. This company's preferred stock is on a 7 per cent. basis, while the dividend on common is at the rate of 5 per cent. per annum.

Of the dividends paid by the coal and coke companies, the Pittsburg railroad coal combination paid $560,000 on its preferred stock, and the Monongahela River coal combination, $350,000 on its preferred; both being on a 7 per cent. basis, though the former declares dividends quarterly and the latter semi-annually. The American Coal Company, of Maryland, paid an extra dividend of 1 per cent., making this year's disbursement 5 per cent., or $75,000 on a capital stock of $1,500,000.

The miscellaneous industrial companies were led by three combinations, the Virginia-Carolina Chemical Company, with $290,000; the General Chemical Company, with $192,599, and the National Salt Company, with $192,500.

NEW PUBLICATIONS.

"Acetic Acid in Foreign Countries." Volume XXII., Part 1, Special Consular Reports. Issued from the Bureau of Foreign Commerce, Department of State. Washington; Government Printing Office. Pages, 84.

This is one of the valuable series of special reports issued by the State Department. It contains a large number of reports made by United States Consuls abroad, and gives many facts relating to the production, consumption and prices of acetic acid in different foreign countries. The main object, of course, as in most of these Consular investigations, is to throw light upon the question of possible foreign trade in acetic acid; and to give manufacturers such information as they are likely to need in endeavoring to establish such a trade. The work which the Department of State is conducting in the collection of information is of great value; and this report, like others of its class, deserves recognition from merchants and manufacturers.

"Municipal Public Works. An Elementary Manual of Municipal Engineering." By Ernest McCullough. Lewiston, Idaho; published by the Author. Pages, 160; illustrated.

This book was originally written for the trustees of a California town, and its object is to instruct non-technical readers rather than engineers. It may be called a primer or first book on the subject. It is to be regretted that the general public knows so little of the topics here discussed, because those subjects are really of importance to all, and should be discussed with at least some knowledge. If men generally knew more of municipal engineering we would have fewer demands for the impossible; and also much stronger demands for improvements which are necessary and possible. He has chapters Concerning Streets; Drainage and Sewerage; Water Supply; Street Lighting and Fire Department; Plans and Surveys; Municipal Ownership and the City Engineer. The topics are treated in a plain and practical way, and from the standpoint of long experience.

"An Elementary Text-Book of Coal Mining." By Robert Peel. London; Blackie & Sons, Limited, and Philadelphia; the J. B. Lippincott Company. Pages, 300; illustrated. Price, $1.

This book was prepared as a short and simple text-book for elementary students of coal mining, and as an aid to those who are qualifying themselves for examination. It is not intended otherwise to take the place of more elaborate and expensive works. It is written by an English mining engineer and for English students, and naturally treats of British practice entirely. Many matters familiar here are not mentioned at all, or very briefly treated. Thus only a few paragraphs is given to machine drills and mining machines are treated quite as briefly. Compressed air locomotives and electric locomotives for haulage are not mentioned, rope haulage systems being the only mechanical systems of haulage described. Apart from this, the book contains much useful matter, and seems to be well suited to the needs of the British student.

"An Experimental Investigation into the Flow of Marble." By Frank Dawson Adams and John Thomas Nicholson. London, England; published for the Royal Society by Dulau & Company. Pages, 40; illustrated.

Reference has heretofore been made in the "Engineering and Mining Journal" to the interesting experiments conducted at McGill University in Montreal, by Dr. Adams, on the action of marble under extremely high pressures. This book contains an account of the experiments, reprinted from the "Philosophical Transactions" of the Royal Society of London. The experiments were undertaken for the purpose of finding explanations for certain geological conditions; they were very carefully conducted and extended over a considerable period of time. They have proved that under very high pressure, produced either by squeezing or hammering, there is in marble a movement or flow similar to the flow of metals under suitable conditions of pressure. This flow is facilitated by high temperatures.

While the completed experiments were conducted with marble, Dr. Adams believes, from the result of other experiments now being carried out, but not yet completed, that similar movements can, to a certain extent, be induced in granite and other harder crystalline rocks. The account of the experiments is an interesting one, and the application of the results to the study of certain geological conditions is of importance.

BOOKS RECEIVED.

In sending books for notices, will publishers, for their own sake and for that of book buyers, give the retail price? These notices do not supersede review on another page of the Journal.

"Annual Report of the State Salt Inspector of Michigan, 1900." J. B. Caswell, State Inspector. Lansing, Mich.; State Printers. Pamphlet. Pages, 12.

"Report of the Department of Mines of Nova Scotia for the Year Ending September 30th, 1900." Edwin Gilpin, Jr., Inspector of Mines. Halifax, N. S.; Public Printer. Pages, 88.

"Mining Law of the State of West Virginia, as Amended by the Legislature in the Session of 1901." Charleston, W. Va.; James W. Paul, Chief Mine Inspector. Pamphlet; pages, 28.

"Tennessee. Tenth Annual Report of the Bureau of Labor Statistics and Mines. 1900. R. A. Shiflett, Commissioner of Labor and Inspector of Mines. Nashville, Tenn.; published by the State. Pages, 292.

"American Industrial Education: What Shall It Be?" Preliminary Report of a Committee of the Society for the Promotion of Engineering Education. Ithaca, N. Y.; published for the Society by Henry S. Jacoby. Pages, 76. Price, 25 cents.

CORRESPONDENCE.

We invite correspondence upon matters of interest to the industries of mining and metallurgy. Communications should invariably be accompanied with the name and address of the writer. Initials will only be published when so requested.

Letters should be addressed to the MANAGING EDITOR.

We do not hold ourselves responsible for the opinions expressed by correspondents.

"Synthetical Coal."

Sir: I note with some amusement a brief editorial mention in the "Engineering and Mining Journal" of March 23d, of artificial coal which I am interested in as the inventor of the Randall "synthetical coal."

Let me say first that your second quotation was made correctly but was an error in the first article. It should have read, "Cost much less than that of coal in the States where it is 'not' mined." This makes a difference, and I would but appeal to your scientific knowledge, not to say reason, in calling your attention to a few physical and chemical facts.

That an artificial coal can be produced economically has been demonstrated, any theory to the contrary. It is as much a fact as the manufacture of artificial ice. The coal—and I use "coal" advisedly, because it is entirely in accord with authoritative definitions of the word according to the Standard dictionary; I use the word "synthetical" advisedly according to its etymology—the coal has for its basis and bulk peat of the highland variety, which is free from alluvium and other deleterious elements. As a binder we use bituminous pitch; as an essential element of combustion we use petroleum, and to effect chemical union of these and other elements we use calcium, and by this combination we potentialize the constituents, not overthrowing any laws of thermodynamics, but putting this law into question somewhat: "The total heat of combustion of any compound of hydrogen and carbon is the sum of the quantities of heat which the constituents would produce, if burned separately." While this, in a gross way, may be true, it should be remembered that it is quite possible to increase the potentiality of the compound by various means, perhaps by simple chemical union or as induced by electrolysis as is done in the manufacture of calcium carbide. During the combustion of this fuel there is evolved a gas which insures complete combustion of the volatile carbons contained. This is itself efficiently increased.

I should be pleased to send to you a careful description and result of analysis, cite to you prices of material, refer you to reliable firms in Philadelphia and St. Louis, manufacturers of briquetting machines, and thus show to you that Randall synthetical coal can be produced economically, unit for unit of heat, dollar for dollar of value, at a rate cheaper than bituminous coal in any State where bituminous coal is not mined.

I am not surprised at the humorous criticism you make before you know anything of the combination and have given it a little thought. I know you investigate these problems with candor, and we value your opinion.

G. M. Randall.

Boston, March 27th, 1901.

Regulating Mine Lighting.

Sir: An act for the better protection of miners employed in the mining of coal, iron ore and other minerals by subterranean work, has been introduced in the Pennsylvania Legislature. The bill has for its object the better protection of miners, and the dispelling of darkness from their working places. Electric light is the means whereby this object is to be obtained. Following is the draft of the bill:

"Be it enacted that all corporations, individuals, or other persons, owning, leasing or operating a mine or mines within this commonwealth, where the mineral is removed by subterranean passage, either by slope or perpendicular shaft, that the owners thereof shall within 6 months after the passage of this act provide a system of lighting for their mines by electricity; said light shall be constructed at sufficient distances along gangways, roadways, slopes, shafts or other places where men are required to labor within said mines, so that the mine will be perfectly lighted, and said light shall be so constructed by good and properly insulated wires, and the globes covering said flame shall be what is known as the incandescent, or some other method of protecting the flame from the air, so that gases cannot be ignited by said flame."

In the Connellsville coke region, experienced miners look upon this bill as supremely foolish. Moreover, the provisions of the bill are practically impossible. Electric light for mining purposes could be conveyed to the working places in the mine only by wires. The miner changes his position every day, and often many times during the same day. It is necessary that he change his light to suit his shifts. He is accustomed to hanging his safety lamp wherever it affords the best light. It is easy to understand how impracticable it would be to continually change and shift an electric bulb.

Aside from its inconvenience, electric lighting of mines is looked upon as a dubious means of safety. When insulated wires are run along any heading, flat or butt, they are always subject to the damp atmosphere of the underground workings. In many mines there are certain places where a light drippage from the roof is constant the year round. Under conditions like these the insulation is liable to become worn. Then, if the naked wire comes into contact with another wire, or any object of iron or steel, a small arc is made and a spark or flash is the result. It has been decided by many mining experts that without a doubt an electric flash will fire gas. Were electricity adopted as a means for affording light to miners, the wires would, of course, have to be strung clear up to the face of working places, and to the break-lines where ribs are being drawn and falls are made. When posts are drawn, stumps removed and the falls occur, the rock comes down, leaving what is termed a "horseback." This is nothing more than a hole in the roof, and in these places adjacent to the man at work with his light and pick, gas gathers. It will thus be seen that to run electric wires for the purpose of giving light to the man, is to lay a death-line to his dangerous surroundings and to place in jeopardy the person whom it is intended to protect.

The argument may be advanced that electricity is already used in mines where safety lamps are employed. This is true, but electricity is not used in any mine of the Connellsville Coke Region at the working faces. Electric dynamos are installed, lines are laid in the engine rooms, mule stables, about the bottom of the shaft or slope, and along the main haulage ways. These places are lighted with electricity. But these places seldom, if ever, have about them even a faint trace of gas. The intake and the outlet of the air current give these places a brisk breeze, and any amount of gas that might come off the old gob or working places is so diluted before it reaches them that it has all semblance of danger or of containing elements of danger. The Wolf safety lamp gives much more light than other types, and in the Connellsville Region is looked upon as the safest and most serviceable means of affording light to miners at their working places. J.

Connellsville, Pa., March 30th, 1901.

THE METAL PRODUCTION OF COLORADO.

The figures collected by Mr. Harry A. Lee, commissioner of mines, give the production of the precious metals, lead and copper, as in the table below. The statement is by counties, but we have included under one head all those counties whose output was less than $5,000 each. The values are based on the average selling prices of the metals for the year:

Counties:	Gold.	Silver.	Lead.	Copper.	Totals.
Boulder	$607,015	$55,470	$3,598	$3,365	$669,449
Chaffee	172,677	76,965	39,723	124,507	413,572
Clear Creek	465,447	834,036	236,229	40,324	1,576,035
Custer	20,835	50,728	33,552	380	105,495
Dolores	50,125	97,837	9,591	5,949	163,862
Eagle	103,598	144,113	174,056	59,316	481,083
Fremont	8,309	1,350	392	1,111	11,162
Gilpin	1,655,502	145,173	34,802	132,074	1,967,551
Gunnison	83,858	90,117	74,891	7,069	255,935
Hinsdale	56,470	95,483	443,535	4,821	600,309
Lake	2,529,512	4,278,606	2,960,964	450,757	10,219,839
La Plata	15,006	4,350	686	58	20,100
Mineral	209,387	1,400,171	707,228	432	2,317,218
Montrose	1,633	12,068	.....	5,291	18,992
Montezuma	9,922	63	.....	.....	9,985
Ouray	1,437,909	1,219,152	448,340	58,211	3,163,613
Park	116,558	26,491	32,264	2,478	177,791
Pitkin	13,456	2,529,549	1,298,492	1,005	3,842,502
Rio Grande	107,629	1,888	1,242	1,421	112,180
Saguache	7,979	9,698	14,950	2,664	35,291
San Juan	757,204	418,397	831,495	325,789	2,332,885
San Miguel	1,827,352	698,043	158,617	51,385	2,735,396
Summit	338,182	247,685	265,387	8,761	860,014
Teller	18,147,681	49,614	.....	22	18,197,318
Other counties	18,788	1,724	104	5,824	26,440
Total, 1900	$28,762,036	$12,488,775	$7,770,196	$1,293,012	$50,314,019
Total, 1899	26,508,676	13,771,731	6,170,766	1,869,170	48,320,342
Changes	I. $2,253,360	D. $1,282,956	I. $1,599,430	D. $576,158	I. $1,993,677

The notable feature of this statement is the large production of Teller County, which furnished last year 63.1 per cent. of the gold, or 36.2 per cent. of the total output of metals. The Cripple Creek gold production is in fact nearly 20 per cent. of the total gold output of the United States. Lake County, with the Leadville mines, comes second in rank.

The changes in 1900 were not marked in most cases, but nearly every part of the State maintained its output.

THE FRASCH ELECTROLYTIC PROCESS FOR REFINING NICKEL.

In the "Engineering and Mining Journal," September 8th, 1900, the electrolytic process for refining nickel, devised by Mr. Hans A. Frasch, and controlled by the Nickel-Copper Company, of Ontario, was partially described, some details being withheld in view of the fact that applications for patents were then pending. The process is now protected by a group of United States patents issued to Mr. Frasch, four of which—Nos. 669,439, 669,440, 669,441 and 669,442—are dated March 5th, 1901, and one—No. 669,899—is dated March 12th, 1901. Each of these patents covers specifically some portion of the invention, but they are all related, and must be taken together to cover the whole.

Patents Nos. 669,439 and 669,440 can be taken together, the first covering the apparatus and the second the method of recovering metals by electrolysis, which the inventor claims. To use Mr. Frasch's statement as made in his specifications, the invention relates to the electrolytic separation, recovery or refining of metals, such as copper, nickel, cobalt and others. In the extraction of metals from matte or ores by the electric current, the electrolytic solutions are obtained by the action of mineral or halogen acids upon matte or ores, either by direct chemical action or by means of an electric current, and the solutions of the sulphates or chlorides which constitute the electrolyte are more or less impure. An electrolyte of greater purity is obtained, and the direct extraction and reduction of those metals whose hydroxides are soluble in alkalies or ammonia by the direct action of an electric current upon a salt of ammonium in presence of an anode containing the metal to be obtained, the ammonium salt being recovered and used over again. For example, if ammonium sulphate be used as the electrolyte in presence of a copper or nickel bearing anode, copper or nickel ammonium sulphate is formed, and the metal is deposited on the cathode, whence it may be recovered, while the ammonium sulphate is reformed. By this means all the metals and substances contained in the anode which are not soluble in ammonia remain undissolved, and the copper or nickel is obtained without purification of the electrolyte.

Instead of ammonium sulphate the chloride or any other ammonium salt or any salt of an alkali may be used which is capable of forming a double salt with the metal to be extracted.

The invention comprehends a method of producing an electrolyte of metals whose hydroxides are soluble in ammonia by percolating a solution of a salt of ammonia through an anode composed of disintegrated substance bearing the metal to be extracted and decomposing the salt of ammonia in the presence of a cathode by the action of an electric current and successively circulating the solution through the anode and past the cathode.

The accompanying drawing shows in vertical section one form of apparatus by which the method may be carried out, but the invention in this case is not limited to the kind of apparatus employed.

The tank, or vessel, a, of suitable construction, has the anode, d, in its bottom, and this anode is composed of a layer of disintegrated matte or ore bearing the metal or metals to be extracted, to which the current is conducted by means of carbon rods or other usual conductors, b'. Above this layer is the diaphragm, c, preferably sand, ground quartz, or other silicious or electrically neutral or inert material. d represents the cathodes, suspended in any suitable and easily removable manner, within the tank. These cathodes, preferably, are made of the kind of metal to be extracted, but may be of iron, carbon, or other suitable material. e is a pipe by which the electrolytic solution may be introduced beneath and through the permeable anode from a tank or holder, f, and g is an overflow pipe opening from the upper portion of the tank and between the cathodes, and leading to a receiver, h.

The electrolytic solution is placed in the vessel, f, whence it is introduced into the pipe, e, and thence discharged by hydrostatic or other pressure into and through the anode, permeating the matte, and itself being saturated, and depositing the metal on the cathodes. The overflowing electrolyte is conveyed by pipe g to the receiver, h, and is pumped or otherwise returned to the holder, f, through pipe i and a suitable forcing apparatus, pump, ejector, or other medium, j, and thence re-used in the vessel.

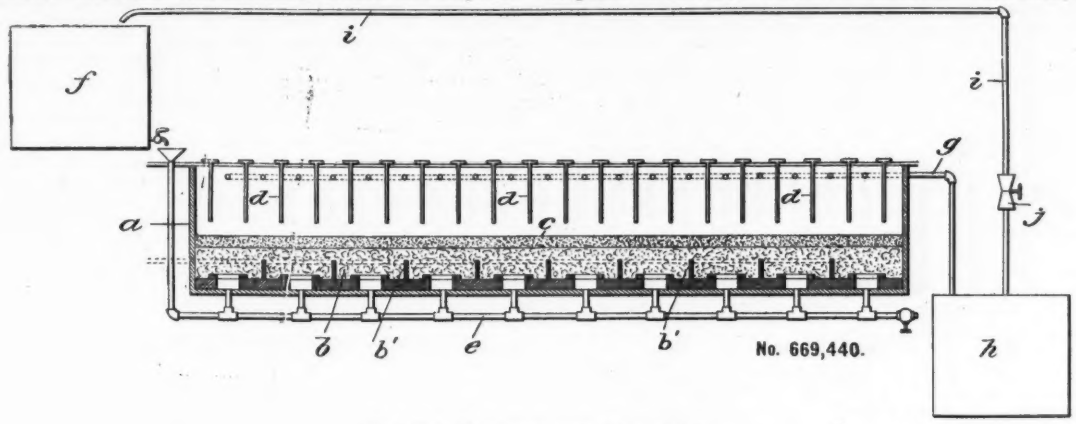
Instead of conducting the electrolyte to a receiver or holder it may be made to circulate directly through the electrolyzing apparatus.

The third patent—No. 669,441—covers the production of alkali by this method. The essential part of the invention here described is in separating halogen or mineral acids from the corresponding alkali salts by binding the acids or chlorine "in statu nascendi" to metals which form a part or the whole of an anode in an electrolytic bath. If, for instance, a solution such as sodium chloride is subjected to an electric current in presence of an anode consisting of a metal-bearing substance, such as copper or nickel matte, the cathode consisting of any substance conducting the electric current, chloride of copper, nickel, iron, etc., is formed at the anode, while caustic soda is produced at the cathode. In this way two valuable products are obtained in one and the same operation, the chloride of copper and nickel, which may be subjected to an electric current and the metals separated and refined, and caustic soda, which in itself forms a valuable marketable product. One of the advantages of this invention consists in recovering simultaneously caustic alkali and the salts of metals from ores or matte.

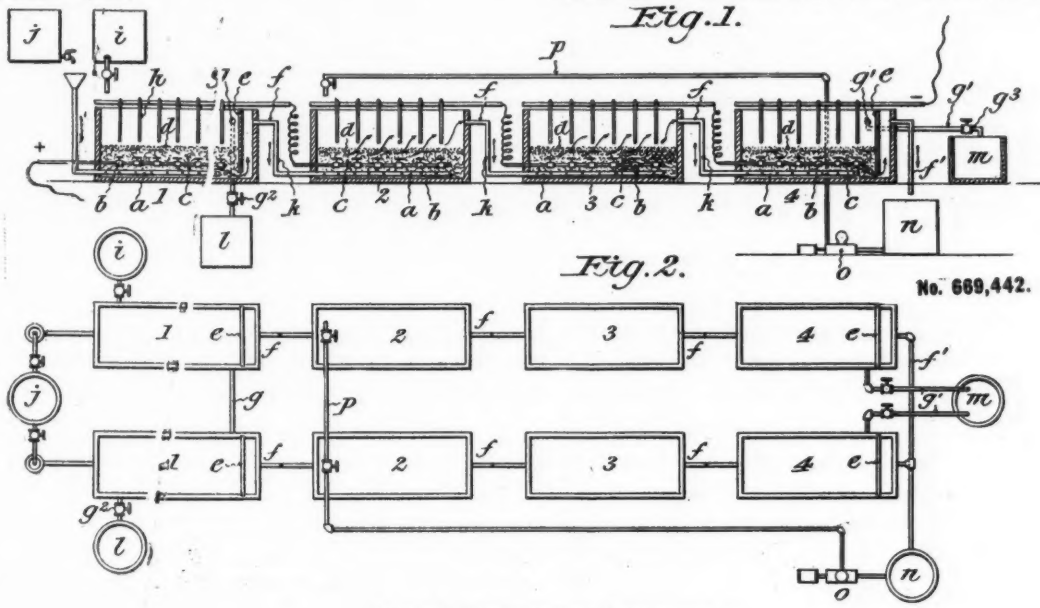
The fourth patent covers and describes more specifically the application of this process to the treatment of copper-nickel ore and matte. In the specification the inventor says: "To treat such matte and bring the metals contained therein into solution, I use the matte for an anode in an electrolytic bath, in which a solution of a salt of an alkali forms the electrolyte, ordinary carbon or copper cathodes being employed. By electrolysis I obtain caustic soda at the cathode and a solution of the corresponding salts of the metals of which the matte is composed at the anode, while the sulphur contained in the matte remains as residuum in concentrated form. While I prefer to do so, I do not limit myself to producing the solution in this manner, and the solution may be obtained by chemical or any other process. The metallic solution thus obtained I subject to electrolysis in a series of baths, all having matte anodes and cathodes composed, preferably, of copper, the anodes of the baths consisting of disintegrated matte, and arranged in such a manner that the metallic solution which forms the electrolyte passes through

the body of the anode and through a suitable diaphragm, past the cathodes, and through an overflow on to the anode of the bath next in series, and so on through any desired number of baths. The least electropositive metal represented in the electrolyte—in this instance copper—is deposited at the cathodes in the passage of the electrolyte past the cathodes, care being taken that the tension of the electric current does not greatly exceed the electrochemical requirements for copper, the solvent agent represented in the electrolyte as liberated dissolving a corresponding quantity of fresh metals from the metal-bearing anode of each bath, and by the repeated deposition of copper only and re-saturation with the compound metals of the anode, the electrolyte becomes more and more saturated with the other metals and impoverished in copper, until eventually a point of saturation is reached convenient for the recovery of the metals other than copper. To remove the last quantities of copper yet contained in the electrolyte, the latter in its passage through the bath last in series is not allowed to pass the cathodes, but is brought to circulate through the anode only, and below a diaphragm, permitting only enough of the electrolyte to pass through the diaphragm as will insure complete exhaustion of the copper still contained in the electrolyte at the cathodes. The solution derived from the cathode section of the bath last in series contains then only nickel, iron and cobalt. The iron is removed from the solution by chemical treatment, and the nickel may be separated from the cobalt by electrolysis or by chemical means.

Figs. 1 and 2 show apparatus for the application of the process described, in section and in plan.



FRASCH'S ELECTROLYTIC APPARATUS.



FRASCH'S ELECTROLYTIC APPARATUS.

The final patent covers the production of a nickel salt which may be employed directly for nickel-plating and other purposes. This salt is formed by absorbing ammonia in a solution of a nickel salt—such as the sulphate or chloride—until the nickel is transformed into the corresponding ammonium salt. It may also be produced from the normal nickel-ammonium chloride or sulphate by addition of ammonia and precipitation, as above described.

The nickel-ammonium salt obtained by this invention is of great purity and may be directly employed for nickel-plating and for other purposes. Analysis shows it to contain: Nickel, 24.7; chlorine, 30.6; ammonium (combined as NH_4), 14.7; ammonia (free or combined), 26.5; cobalt (as an impurity), 0.05; sodium chloride (as an impurity), 1.81; moisture (as an impurity), 1.6; total, 99.96. This nickel-ammonium salt on present determination corresponds to the chemical formula $Ni(NH_3)_2Cl_2 + 4NH_3$. The salt is of a purple (violet) color, crystalline, very hygroscopic, and if precipitated from a concentrated salt solution it forms a fine powder of minute crystals, while if dissolved to saturation in hot water, large crystals are formed upon cooling which are quadratic in form and of dark blue or sapphire color. If exposed to dry air, part of its ammonia evaporates, and the color changes from purple to green. Exposed to moist air, it absorbs the moisture and liquefies, forming a dark-green solution. It is readily soluble in water, forming a blue solution, and parts with some of its ammonia. If exposed to atmospheric air, or if part of its ammonia has been allowed to evaporate, it forms a turbid solution which becomes clear upon the addition of ammonia. If boiled in aqueous solution, two-thirds of the ammonia contents evaporate and a green precipitate is formed. The dry salt smells slightly of ammonia, and if moistened or dissolved, develops a strong odor of ammonia. It differs from the normal nickel-ammonium chloride or sulphate in the great excess of ammonia it contains, there being about 6 equivalents of ammonia to every 1 of nickel, 2 of said equivalents of ammonia being in chemical combination with the nickel and chlorine and 4 existing as free ammonia.

THE UNITED STATES STEEL CORPORATION.

The United States Steel Corporation filed with the Secretary of State of New Jersey this week amendments to its articles of incorporation increasing its capital stock to $1,100,000,000. Of the stock, $550,000,000 is to be 7 per cent. cumulative preferred and $550,000,000 common stock.

It is officially announced by J. P. Morgan & Co. that the United States Steel Corporation proposes to take over the American Bridge Company and the Lake Superior Consolidated Iron Mines. The stock of the consolidated company will be issued in exchange for the stocks of the two companies named in the following proportions:

	Preferred.	Common.
American Bridge, preferred	110	...
American Bridge, common	...	105
Lake Superior Consolidated Iron Mines	135	135

The amounts of stock of the new company needed to make the exchange on the above basis are as follows:

	Preferred.	Common.
American Bridge, preferred	$33,580,580	.....
American Bridge, common	.....	$32,054,190
Lake Superior Consolidated Iron Mines	38,774,700	38,774,000
Total	$72,355,280	$70,828,190

The official circular of J. P. Morgan & Co. further states in part:

"The authorized capital stock of the United States Steel Corporation has been increased to $550,000,000 of preferred stock and $550,000,000 of common stock. The corporation has appropriated and has agreed to issue $425,000,000 of such preferred stock and $425,000,000 of such com-

mon stock under the contract referred to in said circular of March 2d, 1901; and it proposes to issue the remainder of such authorized capital stock for future requirements and acquisitions, including the acquisition of the stocks deposited under this circular.

"Arrangements have already been made for the acquisition of more than 85 per cent. of the stock of the Lake Superior Consolidated Iron Mines, embracing therein the interests of Mr. John D. Rockefeller. Arrangements have also been made for the acquisition by the United States Steel Corporation of all the outstanding interest in the Oliver Iron Mining Company and the Pittsburg Steamship Company not owned by the Carnegie Company. The offer made for stock of the American Bridge Company is conditional upon the deposit and sale hereunder of at least two-thirds in amount of all outstanding shares of the capital stock of said company, which two-thirds shall include two-thirds of the outstanding preferred stock."

It is understood that the outside interests in the Oliver Iron Mining Company and the Pittsburg Steamship Company, above referred to, were owned chiefly by Mr. M. A. Hanna, of Cleveland.

In accordance with their circular of March 2d, 1901, which provided among other things that the entire plan of organization and management should be determined by Messrs. J. P. Morgan & Co., they now announce that the organization and management of the United States Steel Corporation will be constituted as follows: Directors: J. Pierpont Morgan, John D. Rockefeller, Francis H. Peabody, Henry H. Rogers, Charles M. Schwab, Elbert H. Gray, Robert Bacon, Charles Steele, Marshall Field, Norman B. Ream, P. A. B. Widener, William H. Moore, James H. Reed, Henry C. Frick, Daniel G. Reid, E. C. Converse, Percival Roberts, John D. Rockefeller, Jr., Alfred Clifford, William E. Dodge, Nathaniel Thayer, William Edenborn, Abram S. Hewitt, Clement A. Griscom.

The officers of the corporation are as follows: President, Charles M. Schwab; treasurer, Arthur F. Luke; secretary, Richard Trimble; Executive Committee, E. H. Gray, chairman; Daniel G. Reid, William Edenborn, E. C. Converse, Percival Roberts and Charles Steele; Finance Committee, Robert Bacon, chairman; Henry H. Rogers, Norman B. Ream and P. A. B. Widener.

THE MINERAL PRODUCTION IN CANADA IN 1900.

We are indebted to the courtesy of the Geological Survey of Canada for advance proofs of the summary statement of the mineral production of the Dominion for the year 1900, as prepared by the Section of Mineral Statistics, under charge of Mr. Elric Drew Ingall. The statement with the comments made by the Survey, are given below:

THE MINERAL PRODUCTION OF CANADA.

Product.—Metallic.		Quantity. (a)	Value. (a)
Copper (b)	Lbs.	18,919,820	$3,063,119
Gold, Yukon	$22,275,000		
Gold, all other	5,441,752		
			27,916,752
*Pig iron	Tons.	35,387	583,158
Lead (c)	Lbs.	63,169,821	2,760,521
Nickel (d)	"	7,080,227	3,327,707
Silver (e)	Oz.	4,446,505	2,730,598
Zinc	Lbs.	212,800	9,342
Total metallic		.....	$40,391,197
Non-Metallic.			
Arsenic	Lbs.	606,000	22,725
Asbestos and asbestic	Tons.	30,641	763,431
Chromite	"	2,335	27,000
Coal	"	5,332,197	12,668,475
Coke (f)	"	157,134	649,140
Fire clay	"	1,245	4,130
Graphite	"	1,922	30,940
Grindstones	"	5,549	53,450
Gypsum	"	252,001	259,009
Limestone for flux	"	52,966	39,332
Mica	"	.....	166,000
Mineral pigments:			
Baryta	"	1,331	7,575
Ochers	"	1,966	15,398
Mineral water		.....	75,000
Natural gas (g)		.....	417,094
Petroleum (h)	Bbls.	710,498	1,151,007
Phosphate (apatite)	Tons.	1,415	7,105
Pyrites	"	40,031	155,164
Salt	"	62,055	279,458
Soapstone	"	420	1,365
Talc	"	1,000	5,000
Tripolite	"	336	1,950
Structural Materials and Clay Products.			
Cement, natural rock	Bbls.	125,428	99,994
Cement, Portland	"	283,124	545,826
Flagstones		.....	5,250
Granite		.....	80,000
Pottery		.....	200,000
Sewer pipe		.....	231,525
Slate		.....	12,100
Terra-cotta, pressed brick, etc		.....	259,450
Building material, including bricks, building stone, lime, sands and gravels, tiles, etc		.....	4,850,000
Total structural materials and clay products		.....	$6,284,145
Total all other non-metallic		.....	16,799,748
Total non-metallic		.....	$23,083,893
Total metallic		.....	40,391,197
Estimated value of mineral products not returned		.....	300,000
Total, 1900		.....	$63,775,090

*The total production of pig iron in Canada in 1900 from Canadian and foreign ores amounted to 96,575 tons, valued at $1,501,698, of which it is estimated 35,387 tons, valued at $583,158, should be attributed to Canadian ore and 61,188 tons, valued at $918,540, to the ore imported.

(a) Quantity or value of product marketed. The ton used is that of 2,000 lbs.
(b) Copper contents of ore, matte, etc., at 16.19 cents per lb.
(c) Lead contents of ores, etc., at 4.37 cents per lb.
(d) Nickel contents of ore, matte, etc., at 47 cents per lb.
(e) Silver contents of ore at 61.41 cents per oz.
(f) Oven coke, all the production of Nova Scotia and British Columbia.
(g) Gross return from sale of gas.
(h) Calculated from inspection returns at 100 gals. crude to 54 refined oil, and computed at $1.62 per bbl. of 35 imp. gals.

The total value of the mineral production of Canada for 15 years past has been as follows:

1900	$63,775,090	1895	$20,639,964	1890	$16,763,353
1899	49,584,027	1894	19,931,158	1889	14,013,913
1898	38,697,021	1893	20,035,082	1888	12,518,894
1897	28,661,430	1892	16,628,417	1887	11,321,331
1896	22,584,513	1891	18,976,616	1886	10,221,255

It is gratifying to be able to record a large increase in the total production of minerals in Canada during 1900, thus continuing the very satisfactory records of the past four years. The total increased by a little over 28 per cent., 12 per cent. of which must be credited to the enlarged output of the Yukon gold; 9.6 per cent. to increases in other metals, and 6 per cent. to the increase in the aggregate value of the non-metallic products, the value of the structural materials and clay products showing only a slight growth over past years. Compared with 1894, when the steady increase began, the total mineral production of 1900 improved nearly 320 per cent., and since 1886, when the first figures are available, over 600 per cent.

The value per capita of the mineral income of the community based on an estimate of the population amounts to $11.84, as compared with about $8.90 in 1899 and $2.23 in 1886. The per capita production in the United States for last year is estimated at a little over $15. The metal mining industries of the country lead all other classes, contributing 63.27 per cent., the non-metallic accounting for 26.38 per cent., and the structural class being credited with nearly 10 per cent. If, however, the Yukon placer gold be excepted as a special feature, the metallic and non-metallic products other than structural materials stand nearly on an equal footing.

Grouping the metalliferous products with coal and coke, over 84 per cent. of the total output is accounted for.

——1899.—— Product.	Per cent of total.	——1900.—— Product.	Per cent of total.
Gold	42.88	Gold	43.84
Coal and coke	21.45	Coal and coke	20.92
Building material	9.07	Building material	7.62
Copper	5.36	Nickel	5.19
Nickel	4.17	Copper	4.81
Silver	4.10	Lead	4.34
Petroleum	2.42	Silver	4.29
Lead	1.97	Petroleum	1.81
Cement	1.28	Asbestos	1.20
Asbestos	0.98	Cement	1.11
Natural gas	0.78	Pig iron	0.92
Gypsum	0.52	Natural gas	0.66
Salt	0.51	Salt	0.44

The above figures give the percentage contributions for 1900 based on the values of the different minerals produced in comparison with 1899.

As for several years past, gold is the dominant factor, followed by coal and coke; lead takes a much more prominent place, while petroleum ranks considerably lower. The pig iron item, refers only of course to the proportion of the whole credited to Canadian ores. Other features of less import, will be evident on inspection of the figures.

Product.	Quantity. Inc. Per ct.	Value. Inc. Per ct.	Product.	Quantity. Inc. Per ct.	Value. Inc. Per ct.
Metallic:			Non-metallic:		
Copper	25.47	15.35	Asbestos	19.99	57.13
Gold	.....	31.30	Coal	8.27	23.19
Iron ore (Canadian)	7.40	14.96	Coke	55.86	85.45
Iron pig (Canadian)	3.40	17.20	Cement	2.97	1.98
Lead	188.94	176.81	Gypsum	3.84	0.65
Nickel	23.26	60.93	Natural gas	.....	7.70
Silver	30.33	34.34			

The foregoing figures illustrate the growth in the chief branches of the mineral industry. In copper there were increases at every center. In gold large increases in British Columbia and the Yukon were slightly offset by small decreases in the eastern gold mining districts. The iron smelting industry shows encouraging features. The figures above refer to Canadian ore and the pig produced from it. The total production of pig from both foreign and home ore, 96,575 tons, valued at $1,501,698, compared with that of the previous years, shows a decrease of 6.19 per cent. in quantity and an increase of 9.03 per cent. in value. The very large growth in the output of lead was slightly offset by somewhat lower prices. British Columbia, as practically the only producer, is to be credited with this gratifying feature of the year's record, as well as with that illustrated in the figures for silver, where the higher prices ruling considerably enhanced the already large increase in quantity. The nickel output of the Sudbury District in Ontario was much increased in quantity, and the prices were higher by about 30 per cent., as evidenced by the figures.

The chief non-metallic minerals show increases in quantity, also, as well as higher values in most cases. Prices were much higher for asbestos, causing, of course, a larger output from the mines in Quebec. The coal output of the country still continues to grow steadily, and the value to increase owing to enhanced prices. The associated coke industries are growing rapidly, and the much greater value given is to be attributed to better prices and the increased prominence of the higher-priced western product, chiefly from the new Crow's Nest Pass operations.

THE GERMAN WIRE-NAIL TRUST.—United States Consul-General Guenther reports from Frankfort, February 19th, 1901, that the wire-nail trust, during the second half of 1900, sold 2,230,718 tons in Germany and 1,952,469 tons to foreign countries. While the sales to the latter were only about 300,000 tons less than those made in Germany, a profit of $280,270 was made on German sales, while the sales to foreign countries yielded a loss of $204,627. The price of wire nails in Germany is fixed by the trust at $2.70 per 100 lbs.; for export, however, at only $1.51 per 100 lbs. The Germany consumers have to pay an excessive price in order to enable the trust to sell its surplus to foreign countries at greatly reduced figures. And still the trust asks an increase of duties of 7 marks ($1.67) per 100 kgs. (220 lbs.). The present tariff is 3 marks (71.4c.) per 100 kgs.

NOTES ON THE KERN RIVER OIL DISTRICT, CALIFORNIA.

By Our Special Correspondent.

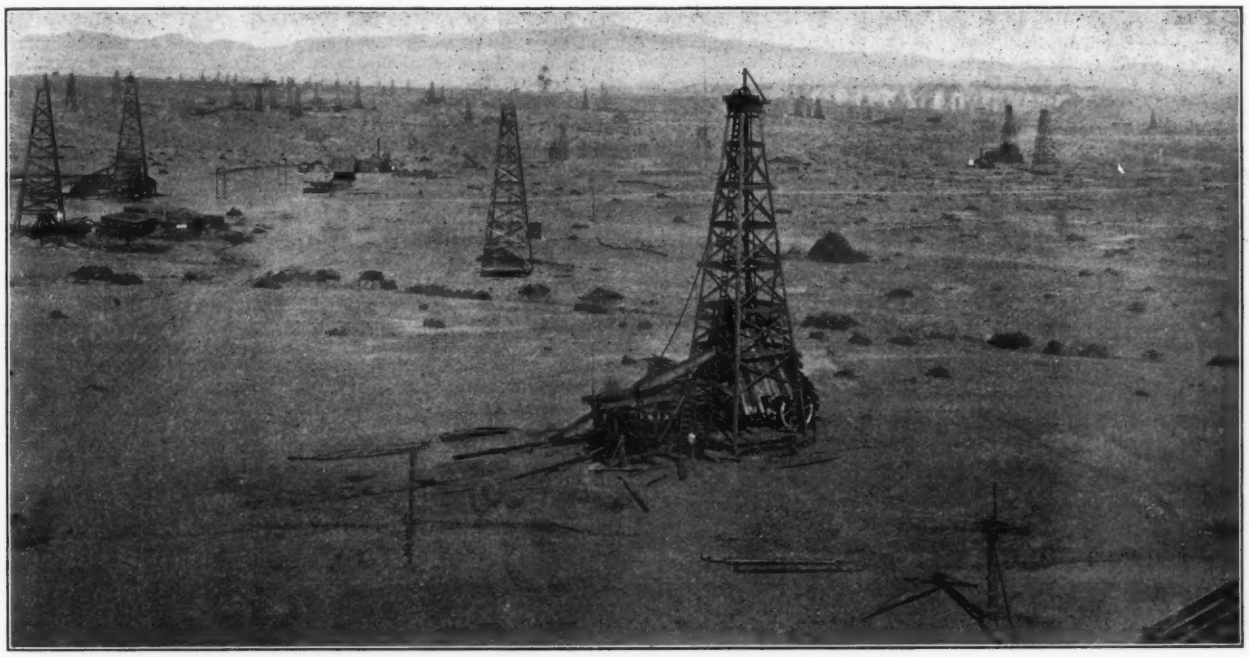
The discovery of the extent of the petroleum deposits of California and the large amount of development, together with the large amount of money invested in this new enterprise within the last eighteen months, is certainly an extraordinary event in the history of the State. Although it has been known for many years that petroleum was to be found in different places throughout the State, no one anticipated the present development.

The principal production was, until a year ago, in Los Angeles County, but gradually the work has been extended through Tulare, Ventura, Kern and Fresno counties. The most satisfactory result obtained up to the present time has been in Kern County, although a great quantity of oil has been produced in the Newhall District, Los Angeles County. Still some of the most profitable development work is to be found in the Kern River District, where there is an area of rolling hills of nearly 8,000 acres, a strip of land 3 miles wide by nearly 5 miles long, extending from Kern River in a northwesterly direction, in which there has not been a single failure. In this tract of land there are over 200 producing wells and some 150 in course of completion, and many new standard drilling rigs are being placed in the field every week. How far this field will extend is at this time a matter of conjecture, and it may prove that the oil sands cross the river in a southeasterly direction.

The oil sand in the Kern River District is very thick, for many wells have penetrated it over 400 ft. and have not gone through it. Most of the wells produce a heavy oil, which has proven to be a satisfactory fuel oil. It is successfully used in the latest sugar refineries in the State, and many other manufacturing establishments, including the Risdon Iron Works; also in the locomotives of the Southern Pacific and Santa Fe railroads. The wells produce by pumping from 150 to 200 bbls. per day each on an average at present.

Among the principal companies developing in the Kern River Field may be mentioned the Peerless, Monte Cristo, Senator, Reed Crude, Sterling, Thirty-three Oil Company and others. The Senator having erected some immense receiving tanks, extensive pipe lines are being laid throughout the entire field, all branches of a main line connecting with these tanks, situated on the Southern Pacific Railroad.

This Kern River District is located on the eastern side of the San Joaquin Valley and within three or four miles of the town of Bakersfield. The present production of this field in round figures might be safely estimated at 150,000 bbls. per month, which will be materially increased as soon as transportation facilities and storage tanks warrant the continuous pumping of the wells.



VIEW IN KERN RIVER OIL DISTRICT, CALIFORNIA.

IMPORTS OF MANGANESE ORE.—Imports of manganese ore into the United States in February were 472 tons only, against 20,106 tons in February of last year.

SALT PRODUCTION IN MICHIGAN.—The report of the State Salt Inspector of Michigan for the year ending November 30th, 1900, says that 56 firms are now at work making salt, 60 blocks being taken up. Salt is made in 8 districts—Saginaw, Bay, St. Clair, Iosco, Midland, Manistee, Mason and Wayne counties. At the close of the year 7 new salt works were under construction or recently completed, while 5 old works were being remodeled or enlarged. The salt inspected during the year was 4,738,085 bbls., against 4,732,669 bbls. in 1899, showing an increase of 5,416 bbls., or 0.1 per cent. The inspector, however, reports that the salt in bins at the close of the year was 1,235,437 bbls., or 82,600 bbls. more than at the end of 1899; so that the total production for 1900 amounted to 4,820,685 bbls. in all.

THE ZINC-LEAD DEPOSITS OF SOUTHWEST ARKANSAS.

Written for the Engineering and Mining Journal by Wm. B. Phillips.

The zinc-lead mines of Sevier County, in the southwest part of Arkansas, are now being developed by the North American Ore & Metal Company. A recent trip to the mines, for the purpose of examining the property, has enabled me to see what has been done and to inquire into the circumstances surrounding the undertaking.

The mines are at Petty, 6 miles west of Gilham, a station on the Kansas City & Southern Railway, about 67 miles north of Texarkana, and about 4 miles from the Indian Territory line. The first work done here was in the early sixties when the ore was worked for lead by the Confederate Government. There were three lead furnaces in operation, the galena being roughly separated from the gangue and from the zinc blende by hand-sorting and jigging. It is presumable that only the richer portions of the ore were treated, for the old dumps still remaining show both galena and blende in not inconsiderable amounts. The former operators appear to have mined between 1,000 and 1,500 tons of ore, to judge from the extent of the old workings, some of which, however, are now so badly fallen in that no inspection can be made. When the mines were re-opened by the present company two years ago an old six-shooter, loaded with slugs made from the galena, was found in the old workings and is now exhibited as a relic.

The shaft sunk by the early operators was about 80 ft. deep and from it levels were turned off and irregular-shaped excavations made in obtaining the ore that was desired. There does not seem to have been any systematic mining, the best ore being "hogged" wherever it was found. The present company has sunk the main shaft to a depth of 175 ft. and has turned off two sets of levels, one at 115 ft. and the other at 165 ft., extending them to right and left along the course of the vein. It has also deepened No. 2 shaft to 115 ft. Including all the work that can now be measured up the developments include 833 ft. of underground work, divided as follows: Main shaft, 175 ft.; Center shaft, 50 ft.; No. 2 shaft, 115 ft.; No. 1 level, 152 ft.; No. 2 level, east, 176 ft.; No. 2 level, west, 67 ft.; No. 3 level, east, 66 ft.; No. 3 level, west, 32 ft.; total, 833 ft.

The quantity of ore that has been taken out by the present company is about 1,140 tons, allowing 11 cu. ft. = 2,000 lbs. The present equipment consists of an Ingersoll-Sergeant Air Compressor, with condenser, etc., capacity, 6 drills; 2 Ingersoll-Sergeant air drills, on C 32 and one C 6, 2¾ in.; 2 Schmucker air drills, No. 3; 2 Erie boilers, one of 100 and the other of 60 H. P.; 2 engines, one Erie of 100 H. P. and the other an Atlas high-speed 30 H. P.; 1 double-friction hoisting engine, 25 H. P., Schellenbach pattern; 1 Lidgerwood engine, 12 H. P.; 1 Dixie sawmill, capacity 6,000 to 8,000 ft.; 12 Cooley jigs, 5 roughers and 7 cleaners; a 14-in. Schellenbach rock crusher; one set of 18-in., one set of 16-in. and one set of 19-in. Schellenbach rolls; centrifugal pump, Cameron sinking pump, Worthington station pump, etc.

The vein appears to be a true fissure in black slate, probably of upper Silurian age. It varies in width from 3 to 6 ft. and is persistent and strong. It bears a few degrees north of east and at the 165-ft. level dips toward the north at an angle of about 45°. So far as can be ascertained from the old workings, at present, the ore body was approximately vertical for the first 115 ft., it then left the shaft and began to dip toward the north. At the 165-ft. level a cross-cut toward the north found the ore within 25 ft. and at this point it maintains its northerly dip and carries more mineral than in the upper levels. In this part of Sevier County there are belts of black slate bearing a few degrees north of east and showing remarkable persistency. They can be traced for several miles, both east and west and form the well-marked valleys of the region. Traversing them at intervals, varying from 100 ft. to several hundred yards, there are dikes of igneous rock, apparently bearing in the same general direction. The igneous intrusions have doubtless had

considerable influence upon the nature and the occurrence of the ore, but to what extent is not yet known. The diamond drilling that is to be carried on will determine this and other important facts. The ore is a mixture of zinc blende, galena, chalcopyrite and a little pyrite, with willemite and smithsonite sparingly present. The gangue is well crystallized quartz and fragments of slate torn off from the walls. There is no present evidence of the faulting of the ore-body. Shipments of the zinc concentrates have been made to Joplin with satisfactory results, considering that they were not freed of the iron as closely as could have been desired. The iron is carried by the pyrite and the chalcopyrite, and the separation of zinc blende, pyrite and chalcopyrite by water classification is a difficult, if not an impossible task. The galena is jigged out fairly well, an analysis of a sample representing about 5,000 lbs. having shown the lead to run to 82 per cent. Aside from recovering the small amount of zinc still carried by the lead concentrates the problem of bringing the zinc up to 60 per cent., the basis of sales, is one of separating the zinc blende from the pyrite and the chalcopyrite. One plan suggested is to expose the zinc concentrates, coming from the last cleaning jig, to a gentle oxidizing roast and then send the material over a magnetic separator of the saturated field type. In this way it would be possible to render the iron-bearing minerals sufficiently responsive to a current of this kind to permit their removal in great measure. Experiments have shown this to be feasible, and a small reverberatory furnace will be built and a magnetic separator installed in order to determine the matter. The final zinc concentrates sometimes run as low as 53 per cent. of zinc and carry 5 per cent. of iron, as pyrite and chalcopyrite. By closer concentration the zinc can be brought up to 54.5 to 55 per cent., with a corresponding increase in the iron. It appears to be impracticable to treat this material by water classification so as to remove the iron, on account of the closeness of the various specific gravities. The problem will have to be attacked from another direction, and it is thought that the most encouraging outlook is toward roasting and subsequent magnetic separation. Enough has been done to warrant the belief that this process can be successfully applied to material of this kind, and work on a commercial scale will soon be begun.

One shipment of 57,000 lbs. to Joplin showed zinc 55.16 per cent. and iron 3.91 per cent., as the average of four separate analyses, one analysis going to 55.89 per cent. of zinc and 4 per cent. of iron.

I do not know of a more interesting problem in concentration, nor one the successful solution of which would be productive of more important results, than the separation of iron-bearing minerals from zinc blende. The results that have already been attained through roasting and magnetic separation are most promising and the whole matter will be taken in hand by this company at an early date.

The basis of sale of zinc ore at Joplin is 60 per cent. of zinc and 1 per cent. of iron. For each 1 per cent. of zinc below 60 per cent. there is a penalty of $1 a ton, and an additional penalty of the same amount for each 1 per cent. of iron above 1 per cent. An ore carrying 56 per cent. of zinc and 2 per cent. of iron is, therefore, subject to a total penalty of $5 a ton. It is of the utmost importance that the zinc ore should be as free from iron as possible. A process that will bring the iron down and the zinc up is worthy of attention, provided the cost of installation and operation is not too great.

There are other mining properties in the vicinity that appear to be worth prospecting in a thorough manner, as for instance, the copper ores 4 miles north of Petty and the antimony ores 3 miles east. An old shaft on one of the antimony veins was put down to a depth of 225 ft., but the water in it forbade investigation. The zinc-lead district, as well as the copper and the antimony districts, are well wooded with the ordinary hard woods of that part of the country, oak, maple, poplar, etc., and well watered. A good deal of pine has been removed and there are still some mills at work. The Sevier County mining belt, west of the line of the Kansas City Southern Railway, is likely to come into notice. The development of the property under consideration has progressed in a systematic manner, ground has been opened up for a steady supply of 50 tons of ore per day, and it is now the intention of the company to increase the amount of ore mined and milled to 100 tons a day. The machinery already installed will take care of this amount. Other concentrating machinery will be added, a roasting furnace and magnetic separator built and put into operation and there is no reason to doubt the coming in of this property as a producer both of zinc and lead.

THE MINERAL PRODUCTION OF TENNESSEE.

The report of Mr. R. A. Shiflett, State Inspector of Mines of Tennessee, gives the following figures for the mineral production of that State in the year 1900. The number of employees in the table is the maximum employed at any time during the year:

		Tons.	Employees.
Coal	Short tons	3,904,048	8,691
Coke	" "	494,436	493
Brown iron ore	Long tons	378,348	.....
Red iron ore	" "	321,376	.....
Total iron ore	" "	699,724	956
Copper ore	" "	116,000	886
Zinc ore (blende)	Short tons	3,968	83
Barytes	" "	16,605	268
Phosphate rock	Long tons	450,856	2,999

Adding workers in small mines and openings not reported, the total number of persons engaged in mining in Tennessee during the year was 15,099.

The output of iron ore last year showed an increase over 1899 of 32,575 tons, or 4.8 per cent. There were 14 companies at work last year, operating 32 mines or openings.

The copper ore mined came from the Ducktown District, where there are now two companies operating 6 mines. The total in 1899 was 100,022, so that last year's increase was 15,978 tons, or 16 per cent. The increase was chiefly due to the operations of the Ducktown Sulphur, Iron & Copper Company.

The output of zinc ore showed an increase of 268 tons, or 7.2 per cent. There are three zinc mining companies and 7 mines opened; but not all of them were producing in 1900.

There were 12 barytes mines opened last year, 9 of which belong to the Hiawassee Mining Company. Heretofore the crude barytes has been shipped to Lynchburg, Va., or Philadelphia, but crushing and washing machines are being erected at Knoxville by the Hiawassee company. The production of barytes showed last year an increase of 2,605 tons, or 18.6 per cent.

The mining of phosphate rock, which began in Tennessee in 1894, reached its maximum in 1899, when 462,561 tons were mined. The total of 450,856 tons last year was a decrease of 11,705 tons, or 2.6 per cent. Phosphate is now mined in five counties—Maury, Hickman, Perry, Sumner and Williamson—but about 90 per cent. of the output comes from Maury County. Of the rock mined last year 171,738 tons, or 38.2 per cent., was exported.

The coal and coke production is referred to in detail elsewhere.

THE USES OF NATIVE WOODS IN MINING IN THE PHILIPPINES.

Written for the Engineering and Mining Journal by "Manila."

The writer recently inspected some of the mines newly equipped by foreign capitalists in the Philippine Islands and noticed that considerable improvement had been made in the direction of rope haulage systems. Formerly there were no systems at all for conveying ore from one point to another in the mines, the work being done by native carriers with packs or animals with the material packed on their backs. In a few cases I saw that they had put in little narrow-gauge railroads, the cars being box affairs on wooden wheels of native manufacture and the rails of wood. The cars were pushed or hauled from one point to another by animal power in most cases. But the most remarkable thing about the mines in which they had introduced rope hauling systems was the wheels employed for the ropes. Recently some mining and mechanical engineers have located in the islands and commenced to practice their profession. These men have put some good mechanical power systems into the larger mines, with the result that the product is enlarged and the work facilitated. In Fig. 1 is a view of one of the parts of a rope hauling system your correspondent saw. It can be seen that it is planned and arranged on mechanical lines. This affair is used to get an effective turn of the rope from one angle to another. The rope first passes over the groove of the wheel a, thence to the lower wheel b. From the groove of this wheel the rope rises as at d to the new direction on the groove of the wheel c, thus completing the turn in the manner required without strain or twist of the rope. I saw this system of rope turning in several different places and always with good results. Possibly one reason why this arrangement works well is that the wheels are constructed from the so-called "bullet" wood of the islands. This wood received its name when the Americans first arrived, from the fact that some of the native tribes were using the extremely hard fibered wood for the making of bullets for their guns, so the story goes. There is no doubt that the wood could be made into bullets and used with effect, because it is almost as hard as iron and has to be ground to the desired form. The fiber is very close and firm and it is the hardest wood grown here, and possibly anywhere. It thrives in large forests in the interior of several of the islands of the Philippine group and some time capitalists will make fortunes by cutting this wood and sending it to the commercial centers of the world. The natives have used it for years in the making of devices and instruments which require the firmness of metal and at the same time lightness and elasticity. For the purpose of making grooved wheels for mining haulage systems the wood is perfect. After a short run of the ropes in the grooves of the wheels the grooves become as smooth as glass; yet, if properly shaped, the groove will grip the rope to such extent as to obviate all danger of slipping, as is the case in some forms of iron or other metal wheels.

Although the Filipino mining engineers are capable of using the wood wheels with good results, they often make the mistake shown in Fig. 2. They will have large and properly patterned wheels made and will then, unless watched, put a rope on the wheels which is too small in diameter, with the result that the rope wears off quickly and breaks. While in service, such a rope slips and causes much trouble. In mines where there are one or more American engineers or machinists, this trouble is usually avoided, but your correspondent visited a number of mines in which the management employed Spanish, Filipino, German, Chinese or Russian engineers, and in cases where Filipinos only were engaged, many serious defects were located in the rope haulage systems. This, of course, might be expected from the fact that there are no mechanical or engineering institutions in the country as yet, and the Filipino engineers and machinists have had no training except such as they may have picked up in daily practice. Their mistakes are many. However, they are establishing mining and mechanical schools in Manila and in course of time trained engineers will come forth from these mechanical colleges well equipped for the work they are to undertake.

The Filipino mining engineers also lack judgment as to the security of certain mechanical fixings. For example, in Fig. 3 is a drawing from an actual case I saw in a mine where they were running series of these hardwood wheels for a rope hauling system. The system was in good shape so far as wheels, ropes and adjustments were concerned, whereas one of the main boxes for sustaining an important wheel shaft was very defective, in that the cap wabbled up and down and permitted the shaft to tremble as though warped, at every revolution. I examined the shaft and journals and found that the cap was secured to the box by four iron pins instead of screws. The makers of the box, which, by the way, was from American shops, intended that screws be used for holding down the cap, and instead of this, the Filipinos secured iron pins and drove them in with a hammer. Of course the cap jumped up and down as the shaft revolved and made bad work, which was promptly remedied by removing the pins, clearing the holes with a tap and inserting screw bolts as intended originally.

I saw in some of the new mines that they were using leather, rubber

and canvas belting on pulleys turned out from the hard bullet wood. One of the systems is presented in Fig. 4. Here we have the belt taking the turns first at g, thence dropping to pulley h, lifting to j by line i, thus changing direction as desired. I noticed that these wood pulleys worked well and appeared to remain secure on the shaft. They are turned from solid pieces of tne wood and the bore made just right to fit the shaft. Then an expanding set of pins is made and driven between the shaft and the interior of the wheel hub with such force as to firmly secure the wheel to the shaft.

One use to which the remarkable bullet wood of the Philippines is put in some of the mines is presented in Fig. 5, in which a system of track is shown for cars for hauling ores. The tracks are shaped from bullet wood and I saw some of them which had been in constant use for 10 months and, according to appearance, the wood was only rendered all the harder and smoother by the action of the flanged wood and iron wheels against it.

The ties on which the rails are secured are of ordinary hardwood, there being an abundance of oak, ash, walnut, rosewood, mahogany and the like on the islands. Vast forests of all kinds are free for miners or anyone else to draw from as wanted. The formation of the bullet wood rails is shown in two ways, both of which are used by the miners for railway purposes. Tne rails are pinned to the ties with round hard wood pins b. The joints of the rails are effected as at a or as at c, in the latter pins d being used. These rails are very efficient and serve their purpose well. The cars glide over them noiselessly and easily.

I also saw that some of the mining people were using bullet wood for the making of cogs for large gearing. In Fig. 6 is an example of one type employed. The body of the gear is wood and marked f and the bullet wood cog is shaped usually like e and adjusted as shown with a wood pin inserted in such way as to assure an effective grip. In Fig. 7 is a side view of a cogged wheel on the plan referred to in which the rim portion is marked g. The arrangement of the cogs is very similar to any metal gear. These cogs mesh well with those of an adjoining gear, providing the mate is of the same material and plan. If run with metal gearing in which the gearing is of different pattern, the wood cogs are liable to excess of friction and undue wear.

In Fig. 8 is a sketch made from one of the Filipino made windlasses which your correspondent noticed in one of the mines and which is a curiosity in that instead of the bearings and gears being metal, they are mostly made from bullet wood. The frame, the cylinder flanges, the wheels, the journals and practically all of the mechanism is of that useful wood, and cut out slowly and tediously with native tools. Some of the parts were ground to pattern on stone wheels, while others were laboriously filed or sandpapered to shape after days of labor. The fiber of the wood is too hard for a knife or ordinary chisel, although it may be chipped off in bits like chipping metal with a cold chisel and hammer. In this windlass the rope is hemp, Filipino manufacture, and is marked j as wound upon the cylinder. At I are two gears that mesh perfectly and run without strain or rattle. The driving belt is at hand is made from caribao hide, treated and tanned here in a native tannery at Tigbauan on the isle of Panay.

I also obsefved in some of the mines a number of small mechanical rock devices and traps manufactured from the bullet wood. In Fig. 9 is a lever, l, also made from this wood, which is used in one of the coal mines for releasing a larger lever which turns a switch when needed to run a car or set of cars to a siding. The lever is pivoted to the stand k and is locked with a spiral spring, m. Another form I saw of this bullet wood material is marked p, this being used for lifting the latches of traps and an elevator shaft on the passing of the car.

There is a scarcity of metal castings and mechanical fittings for service in the Philippine mines, and that is one reason why the bullet

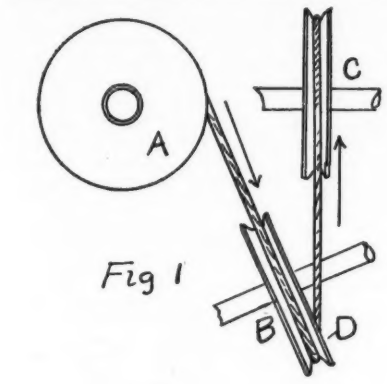


Fig 1

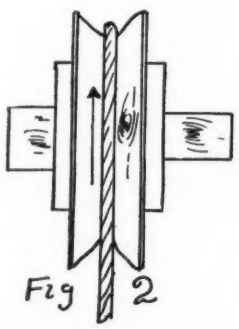


Fig 2

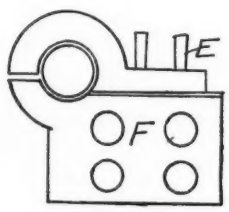


Fig 3

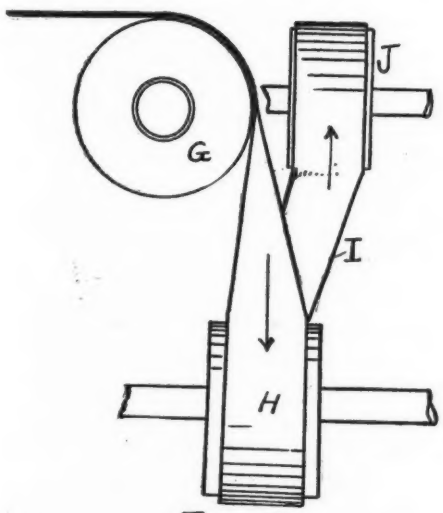


Fig 4

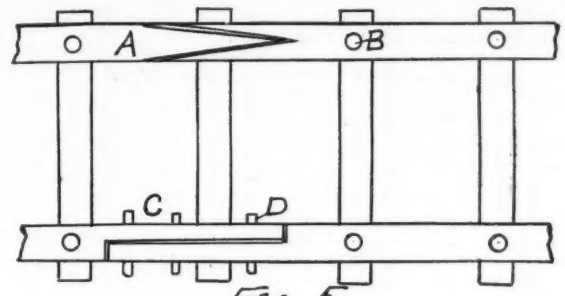


Fig 5

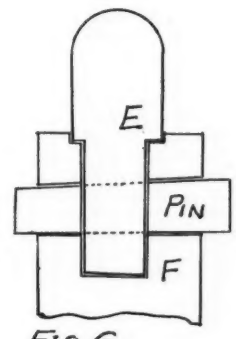


Fig 6

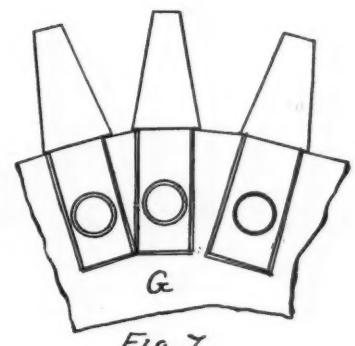


Fig 7

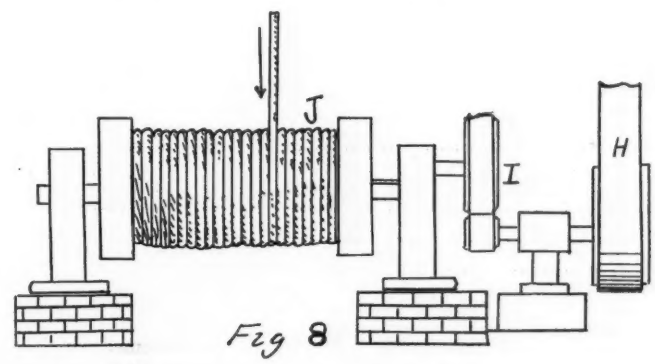


Fig 8

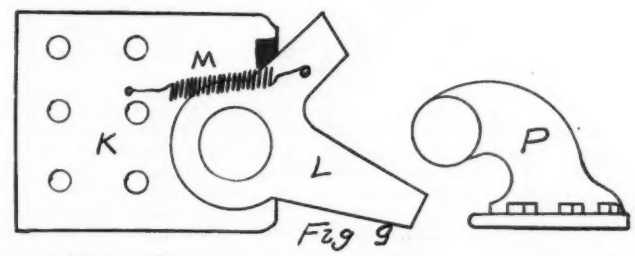


Fig 9

APPLICATIONS OF PHILIPPINE WOODS TO MINING MACHINERY.

and other hard woods are employed to such extent. The native and even the American mining engineers are compelled to resort to all sorts of expedients in order to keep the machinery of the mine in motion. Engineers operating in America or other countries where supplies of all kinds can be had readily would be at loss what to do at times here in the Philippine mines, where it often requires five months to get an order filled for parts of machinery or supplies from America or Europe. Rather than wait so long, engineers use their ingenuity and often produce pieces of mining apparatus in a week or more which one would hardly suppose possible with the limited tools and equipments available. I have seen cylinders and important parts of steam engines made here and used with good results. I know of one mine where they have a home-made turbine at work, and to look at it one would suppose that it had been shipped from the builders in America. There are many other illustrations of ingenuity of mining engineers in this country where mechanical supplies are hard to get and where the mining machinery must be kept running at any cost.

ABSTRACTS OF OFFICIAL REPORTS.

Franklin Mining Company, Michigan.

This company's report for the year ending December 31st, 1900, shows that from 268,571 tons rock stamped the recovery was 4,641,748 lbs. mineral, yielding 3,663,710 lbs. refined copper. The average receipts per pound of copper were 16.22; the average cost, 17.91; showing a net loss of 1.69c. per pound.

The earnings were $594,252. The mine expenses were $582,786; smelting and marketing copper, $63,909; construction, $9,639; total, $656,334; showing a deficit of $62,082 for the year.

The company has used two heads continuously at its mill during the entire year and has used the third head intermittently to stamp any surplus rock; 268,571 tons of rock were stamped during the year at an average cost of 30.34c. per ton, which compares with 32.30c., the average cost of stamping in 1899. The average cost per ton for the last half of the year was 27.77c., which the company hopes to reduce considerably when the third head is running regularly.

The report says that with an increase in production coming from Peninsula Mine, the copper product should be considerably larger this year. The production will be limited at the start, but it is expected to gradually increase until the maximum production is reached. Before the Peninsula Mine is producing up to its fullest capacity, it will be necessary to enlarge the company's stamping facilities, providing the mine can be worked profitably, which now seems well assured. The old Franklin Mine yielded 1,004,055 lbs. of mass copper during the year.

Since the close of the year the company has distributed among its stockholders and others 20,000 shares of stock which were held in the treasury, realizing about $300,000.

Pennsylvania Steel Company.

This company's report for the year ending December 31st, 1900, gives the output of its work as follows, in long tons:

	Steelton.	Sparrow's Pt.	Total.
Pig iron and spiegeleisen	245,000	284,000	529,000
Bessemer and open-hearth ingots	361,000	.....	361,000
Steel rails	138,000	236,000	374,000

The gross earnings are not given; the statement of net earnings and charges is as follows:

	Steelton.	Sparrow's Pt.	Total.
Manufacturing profit	$1,816,772	$1,012,345	$2,829,117
Interest and taxes	$214,430	$204,352	$418,782
Improvements, depreciation, etc.	890,343	117,680	1,008,023
Dividends	131,250	.....	131,250
Total charges	$1,236,023	$322,032	$1,558,055
Surplus	$580,749	$690,313	$1,271,062

The report says: "The average price per ton received for rails, billets and slabs was $7.61 higher than in 1899, but cost increased $7.58, so the benefit from the improved price for the products was received by those who sold the company its supplies. The improvements to blooming mill No. 2 are nearly completed. A new machine shop and foundry were built. The renewal of the blast furnaces was begun and the switch and frog department is being extended. The cost of improvements at Steelton were $957,023, of which $753,000 was charged to capital and $223,447 to operating cost.

"To increase its ore supply the company has acquired 34,097 shares of preferred and 34,097 shares of common stock of the Cuban Steel Ore Company, at a cost of $335,467, and has made a 5-year contract for an ore supply at advantageous terms. It has also purchased 300 coke cars and has issued $250,000 car trust notes against the same. At Sparrow's Point 49 per cent. of the rail and billet output was exported, as compared with 40 per cent. in 1899. The improvements there cost $187,000, of which $117,680 was charged to operating and $70,000 to capital."

Baltic Mining Company, Michigan.

The report of this company covers the year ending December 30th, 1900. The company's copper mine is still in the development stage. During the year 433 ft. shaft sinking and 3,264 ft. drifting were done. There are five shafts, the depths of which at the close of the year were: No. 1, 219 ft.; No. 2, 260 ft.; No. 3, 459 ft.; No. 4, 360 ft.; No. 5, 248 ft. There were 117,368 tons rock raised, of which 19,073 tons were rejected, 9,697 tons sent to the stock-piles and 88,598 tons to the mill. The yield was 2,280,715 lbs. mineral, from which was obtained 76 per cent., or 1,735,060 lbs., refined copper. The average per ton of rock was 25.74 lbs. mineral or 19.58 lbs. fine copper. The copper was sold for an average of 15.49c. per pound.

The receipts were from copper sold, $286,047; interest, $4,488; Atlantic Mining Company on account of railroad, $6,645; total, $297,180. The payments were: Mine expenses, $256,791; smelting and marketing copper $25,237; total, $282,118. The balance, $15,062 added to $240,595 brought over from 1899, made a total of $255,657. From this a total of $241,818 was paid for buildings, machinery, etc., leaving a balance of $13,839.

The directors' report says: "Fair progress has been made during the year in the mine openings, and the erection of necessary equipment. Although the delay of manufacturers in furnishing some of the machinery contracted for has prevented the employment of the desired number of drilling machines, yet we do not anticipate any difficulty in supplying the stamp mill with 1,000 tons of rock daily as soon as it is prepared to begin stamping. A large high duty compressor is now being installed, and will be in commission in a few weeks, when we shall be able to push openings to any extent that may be required. The erection of the stamp mill is well under way. It is planned for the reception of 4 heads of the most approved construction, 2 of which having a capacity of 500 tons each in 24 hours, will be installed at the start, and the others will be added as required.

"The anticipation expressed in our last report, that the average yield of rock would increase with the extension of the openings has been realized, the returns for the year showing an average yield per ton of rock treated of 19.58 lbs., against an average of 17 lbs. per ton for the six months stamping in 1899. It seems likely that a further increase will be shown during the current year. It will be noted that while stamping an average of only 286 tons rock per day, with an aggregate yield of 1,735,060 lbs. refined copper, the proceeds of the copper have left a small surplus over the entire running expenses, which include not only the fixed charges, such as taxes ($13,293) fire insurance, expenses of transfer office and registration of stocks, cost of administration, and all other expenses, but a large amount of development work underground in preparation for an increased output."

Daly-West Mining Company, Utah.

The report of this company for the year 1900 shows that crude ore and concentrates were sold, having contents as follows:

	—Crude Ore.—		—Concentrates.—		Totals,
	Total.	Per ton.	Total.	Per ton.	Quantity.
Copper, lbs.	850,740	2.7%	343,099	1.7%	1,193,839
Lead, lbs.	7,485,875	23.4%	5,689,489	28.0%	13,175,364
Zinc, lbs.	7,114,323	22.2%	3,280,176	16.2%	10,394,499
Silver, oz.	919,979	57.50	468,776	46.53	1,388,755
Gold, oz.	805	0.05	506	0.05	1,311
Value of sales	$612,272	$38.27	$350,229	$34.62	$962,501

During the year the concentrating mill was in operation a fraction over 324 days; during that time there was milled 40,851 dry tons of ore, or an average of 126 tons per day actual running time. There was produced 10,164 tons of concentrates, that were marketed, and 114 tons of zinc concentrates, stored at the mill; thus there was concentrated an average of 3.97 tons into one. The average values contained in the ore during the year were 7.65 per cent. lead and 17.11 oz. silver; also the ore carried an average of 8.17 per cent. zinc. The average theoretical savings, as shown each day by the assays, were 91 per cent. of the lead and 65.19 per cent. of the silver. It might be well to state that the values of the ore were lowered by the milling of 6,656 cars of Varcoe tailings.

Vice-President and General Manager J. E. Bamberger's report says in part: "During the year we produced and marketed 16,000 tons of crude ore, of the value of $38.27 per ton, and 36,863 tons of mill or second-class ore, making 10,116 tons of concentrates of the value of $34.62 per ton, or $962,501 in all, at a total cost for mining, milling, transporting, prospecting, assaying, general and incidental expenses and expenses of marketing of $331,258, or $6.27 per ton, leaving a margin of $631,243, out of which we have disbursed in dividends $487,500; for developments, improvements and betterments, $24,972; leaving $118,771, which was added to our surplus. This, with the amount received from the Anchor Mining Company and miscellaneous receipts, has been increased $136,976 in all.

"The contract entered into for the sale of our ore and concentrates, which expired June 1st, 1900, was renewed on the same favorable terms for an additional two years. We, in conjunction with the leading lead producers of this State, entered into an agreement with the smelters, whereby a fixed price for the lead contents in our ores was agreed upon, for a term of 6 months ending December 31st, 1900. This arrangement was so satisfactory to us that we availed ourselves of the opportunity to continue the same for the entire year of 1901.

"By the expenditure of about $13,000 we have increased our milling capacity about 25 per cent., and as our mill product reduces the average zinc contents in our entire product, we have succeeded in practically eliminating our zinc penalty, which heretofore was quite costly, amounting to over $2,460 in one month. The arrangement made for hauling the ore and supplies in and out of the Ontario Mill Tunnel have worked quite satisfactorily, but I regard the switching charge of 25c. per ton made by the Union Pacific Railway as excessive, and hope to obtain a material reduction on this account. Under the advice of our attorneys, our suit against the Anchor Mining Company was compromised by the payment to us by the Anchor Company of $12,500, each side paying its own costs. . . . .

"The directors, at the regular meeting in January, decided that the physical condition of the mine, with its large reserves of ore, warranted an increase of the dividend to 30c. per share per month, which rate can without doubt be maintained during 1901, without any impairment of the cash surplus or injury to the mine."

Rio Tinto Company, Limited, Spain.

The report of this company covers the year ending December 30th, 1900. The great deposit of copper pyrites which has been worked for so many years seems to show no signs of exhaustion. The financial statement shows: Balance from preceding year, £26,482; profit on sales of produce, £1,905,246; railroad rents, interest, etc., £42,566; total, £1,974,294. The payments were: Interest and taxes, £254,612; administration and general expenses, £61,379; directors' allowances, £11,408; depreciation, £37,705; redemption of mortgage debt, £63,240; re-

serve fund, £60,000; provident fund, £5,000; total, £493,344, leaving a balance of £1,480,950. From this there was paid dividends of 5 per cent. on the preferred stock and 85 per cent. on the common stock, amounting in all to £1,458,776, and leaving a balance of £22,174 to current year.

The directors' report says: "The overburden removed during the year on the North Lode amounted to 847,958 cubic meters, the entire cost of which has as usual been charged to revenue, and the continuance of a monthly charge on pyrites extracted has brought the old balance of the account down to £33,253. From the South Lode Opencast 354,607 cubic meters of overburden have been removed, the entire cost of which, and of further houses which it was necessary to acquire and pull down to enable extension to proceed, has been charged to revenue.

"The quantity of pyrites extracted during the year was: For shipment, 704,803 tons; local treatment, 1,189,701 tons; total, 1,894,504 tons, with an average copper content of 2.744 per cent. The quantity invoiced to consumers in England, Germany and the United States, was 665,967 tons, against 636,323 tons in 1899, 618,110 tons in 1898, and 582,540 tons in 1897. In the interim report, dated October 4th last, attention was directed to the increased consumption of pyrites and to the large demand which had sprung up for ore containing practically no copper. The deliveries of this latter class have been 116,305 tons against 80,717 tons in 1899. The copper produced during the year by treatment at the mines was 21,120 tons, and the copper in pyrites shipped amounted to 14,612 tons, making a total of 35,732 tons. The following quantities were brought to market: Refined copper, 18,971 tons; copper in sulphate, 1,134 tons; copper in pyrites, 14,526 tons; total, 34,631 tons.

"Having regard to the quantity of copper sold the profits of the year might have been expected to have been greater, but the taxes imposed by the Spanish Government have been heavier than anticipated, while the outlay in coal, coke, pig iron and some necessary works nas exceeded what was calculated on. The stocks at the company's works at Cwmavon, consisting of refined copper, copper in process, precipitate and matte (in all 5,992 tons) have been carried over at cost price. The estimated copper contents of the reserve heaps are now 128,016 tons fine copper, and care is taken, by a charge on the yield from washing to keep the book value at the low figure of £4 6s. 10d. per ton. The refined copper produced at Cwmavon has been in quality well up to the company's standard. The quantity is 18,196 tons.

"The railway earnings from public traffic continue to increase and the net results are about £5,260 better than in 1899. The company's traffic to and from the mines having also much increased, it is fortunate that more wagons and superior power locomotives were obtained in time to deal with it. Further outlay in this direction is still necessary to meet the growing business requirements. The pier, the improved appliances for which are being fitted, has worked better than usual notwithstanding that a strike among the hands caused temporary difficulty. The company's steamer 'Don Hugo' is proving of great convenience as a carrier of stores and fuel outward for, and products homeward from, the mines, while she also affords cheap traveling facilities much appreciated by the English staff. It is expected, now she is properly established on the line, to be able to work her to greater advantage than hitherto."

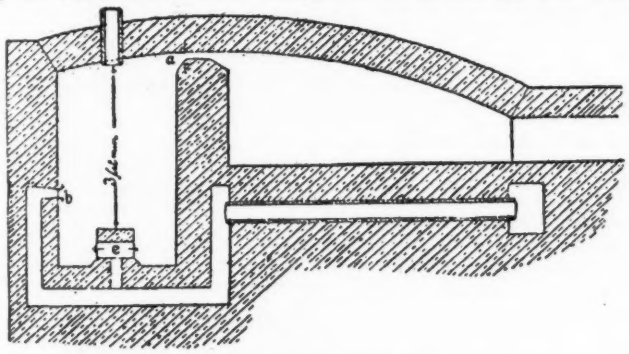


FIG. 1.—REVERBERATORY FURNACE FOR OIL FUEL.

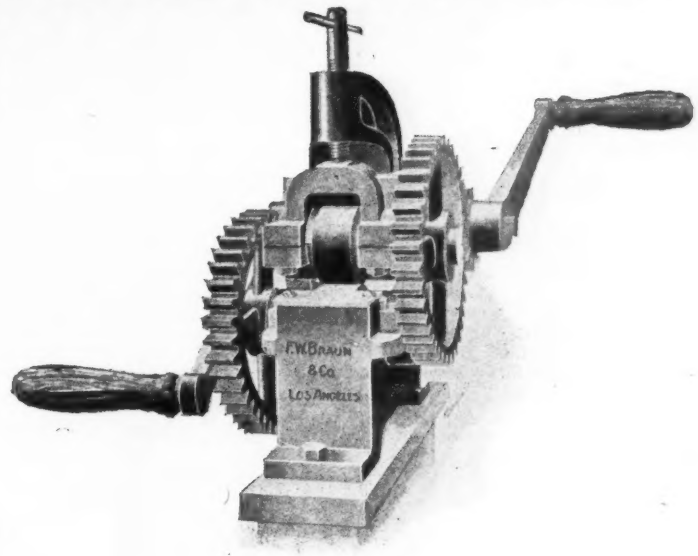
PETROLEUM FOR METALLURGICAL FURNACES.

An article by Mr. A von Forselles, in the "Teknisk Tidskrift" (Stockholm), describes a furnace introduced by Mr. Hjalmar Krusell, of Nobel Brothers, which is finding extensive application in industrial establishments. Experiments have shown that in this furnace, 1 kg. of mazout or petroleum residue is equal to 3 kgs. of coal.

In Mr. Krusell's furnace, the dimensions of the chamber depend on the quantity of oil to be consumed per hour, but it has been found that for each pood (16.3 kgs.) burned in that time, 12 to 15 cu. ft. of chamber space are required. As regards the height of the chamber, which is a very important factor, 3 ft. is found to be the minimum, since if the height be less the oil will not gasify, and it is a particular point to be observed in chamber-construction that a sufficient height of fall should be provided to enable the whole supply of oil to gasify before it reaches the bottom of the furnace.

The detailed dimensions of the chamber furnace—the air conduits, b and c in Fig. 1, and the flue a, are governed by the quantity of oil to be employed. For example, 1 pood of petroleum consumed per hour requires 8,000 cubic meters of air—that is to say, 2.22 cubic meters of air are necessary per second. If the current has a velocity of 20 ft. per second, the sectional area of the air conduits, b and c, will be 16 sq. in. In determining the sectional area of the flue, a, it may be assumed that the temperature in the combustion chamber will be about 1,200° C.; the expansion of air in the chamber under these conditions will therefore necessitate a sectional area of 86.4 sq. in. for the flue a. The maximum height of the same should be 3.5 in., and it is found disadvantageous to exceed this, the temperature being so high that the chamber arch and firebridge would be quickly destroyed. The most favorable height for the flue is from 2 to 3 in., and the length and breadth of the chamber are regulated by this. In the foregoing example the chamber should be 3 ft. high, and have a cubical capacity of 12 to 15 cubic feet; taking the length as 18 in. and the breadth as 3 ft., the capacity will be 13.5 cubic feet. The ratio between the air conduits, b and c, is fixed in such a manner that the supplementary conduit, b, has a sectional area of one-third to one-fourth the total required. The height of the supplementary conduit from the bottom of the chamber should be at least one-third of the total height of the latter. The mazout is fed into the chamber by means of siphons provided with funnels, their number being dependent on the rate of consumption per hour; ½ pood (16.3 lbs.) per siphon an hour is a fair average, though it would, of course, be more advantageous could the fuel be introduced in smaller quantities through a larger number of jets. This again, however, would increase the difficulty of regulating the feed. In the present instance two-feed pipes are presupposed, consisting of ½-in. gas pipe and fitted with cast funnels. Where firebrick pipes are arranged, care must be taken that they are exactly vertical, so as to prevent the oil running now on one side, since if they are aslant they quickly become obstructed, owing to the formation of coke. The siphon tubes are fitted with screw plugs to facilitate cleaning. With regard to the conduits b and e (Fig. 1) it should be remarked that their number ought to correspond to that of the siphons, and that the conduit, e, should be situated immediately below these latter. The regulation and distribution of the petroleum is best effected by ¼-in. taps. The storage tank is emptied by a 3-in. pipe, from whence the oil is delivered into siphons through ¼-in. taps, this method insuring uniform distribution. The feed pipe is situated above the arch of the combustion chamber, the oil undergoing preliminary heating from the radiated heat. For the same reason the storage tank is placed as close to the furnace as possible compatible with safety (the flashing point being only 100° to 130° C.). The best way to regulate the air supply is by flap doors. The warming of the air is effected in different ways. Thus in Fig. 1 the air can be led through a series of gas pipes laid under the sole of the combustion chamber and heated by this means, while in one annealing furnace the waste gases are utilized for heating the air.

To prevent the formation of coke an air current is arranged to impinge directly on the bridge, causing a complete combustion of any oil or residue which may be deposited there. Otherwise a crust of coke will gather, which may obstruct the air passage.



BRAUN'S CORONET ROLLS.

THE BRAUN "CORONET" ROLLS.

The accompanying illustration shows a set of rolls designed for the use of assayers. The machine is made by F. W. Braun & Company, Los Angeles, Cal., and is called by them the "Coronet Rolls." These rolls are small, compact and as light in construction as their requirements permit; constructed with a full knowledge of the needs of the assayer, and admirably answer their purpose. A feed plate that is tangent to the contact point of both rolls obviates the difficulty of inserting a small bullion button between the rolls, a common source of trouble in other types of rolling machines. This plate leads to the opening between the rolls; and the button to be rolled is placed on the feed plate, and then may be easily pushed between the rolls with a pair of pincers. Opposite the feed plate, where the foil or cornet emerges, there is another plate that closely wipes the bottom roll and conducts the foil away from the rolls. This prevents the cornet from dropping to the floor or becoming lost.

The upper roll has a shallow groove cut longitudinally across its face, which, when brought to the point where it is contiguous to its fellow roll, insures a positive feed of any bullion button inserted. The rolls, which run in phosphor-bronze boxes, are 2¼ in. in diameter, and 1¼ in. wide, made of the finest hardened steel; and ground perfectly true. The gearing is such that both rolls are operated by one crank. However, an auxiliary crank is supplied, so that the machine may be operated

with either hand or by two persons, if desired. As will be noticed in the cut, this machine is operated by gear-wheels, giving greater power than can be obtained in any less expensive way. The net weight of the machine is 57 lbs.; or 85 lbs. boxed for shipping.

THE JEFFREY ELECTRIC POWER SHEARING MACHINE.

The accompanying illustration gives a very clear idea of the latest designed shearing machine for coal mining, manufactured by The Jeffrey Manufacturing Company, of Columbus, O. Fig. 1 shows a side view

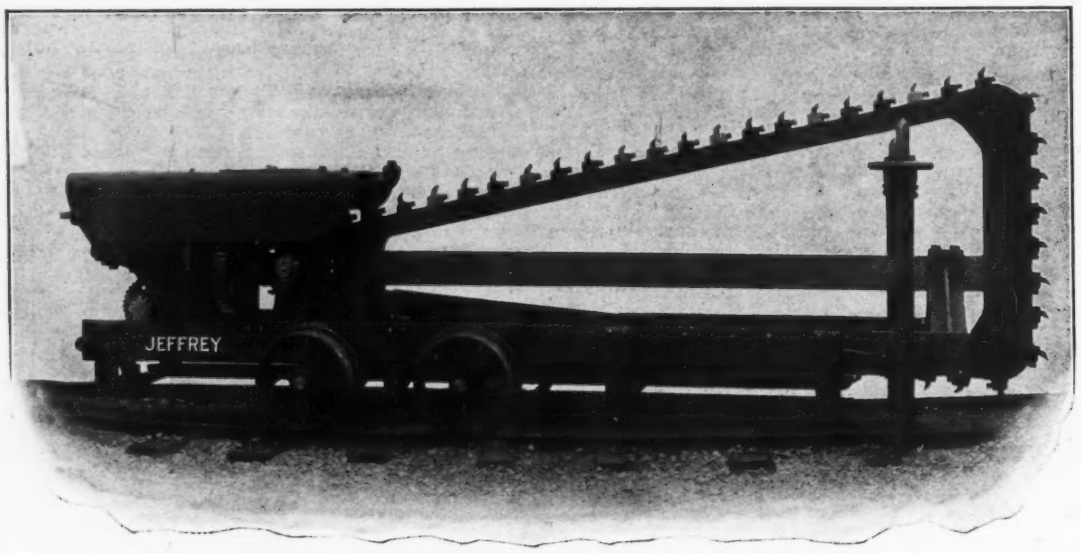


Fig. 1.

of the machine mounted on truck wheels. It might be well to state at this point that it is not necessary to remove these wheels when shearing the coal. It will be seen that there is no separate truck, but the wheels run on gudgeons or spindles, fastened to specially designed cross-ties that support the outside frame of the machine. The outside frame is constructed of heavy steel angles with the flanges turned in, which give a broad wearing surface for the carriage that carries the motor and gearing. The material used in the construction is steel, with the exception of three gears, which are of phosphor-bronze and the rack of malleable iron which is bolted to the inner face of the outside frame. This rack is cast with open teeth, so that any obstacle that may lodge on it is pushed through by the feed pinion teeth, which avoids clogging and undue strain on the teeth. Another feature is the cutting chain, which is interchangeable with cutter chains on Jeffrey standard undercutting machine, and the cuttings are carried down and brought out at the bottom of the kerf, where they are easily gotten at to be removed if necessary.

This machine, though originally designed for entry driving, can be used with equal advantage for shearing rooms in a great number of mines. The motor and gears are perfectly protected by a heavy sheet steel cover and in case of wet roof the shape of the cover is changed somewhat so that all the water that may drip is carried away from the motor. This machine has been fitted with a trolley pole so that it may be moved from one working face to another in a mine by its own power, thus avoiding the delay incident to moving by mules or horses. This machine is built in sizes to shear to a depth of 6 or 7 ft., each cut being either 36 in. or 48 in. high. When a vein of coal is to be sheared which measures more than 36 in. or 48 in. thick, columns are arranged at the side of machine upon which it can be raised or lowered readily by means of ratchet. See Fig. 2.

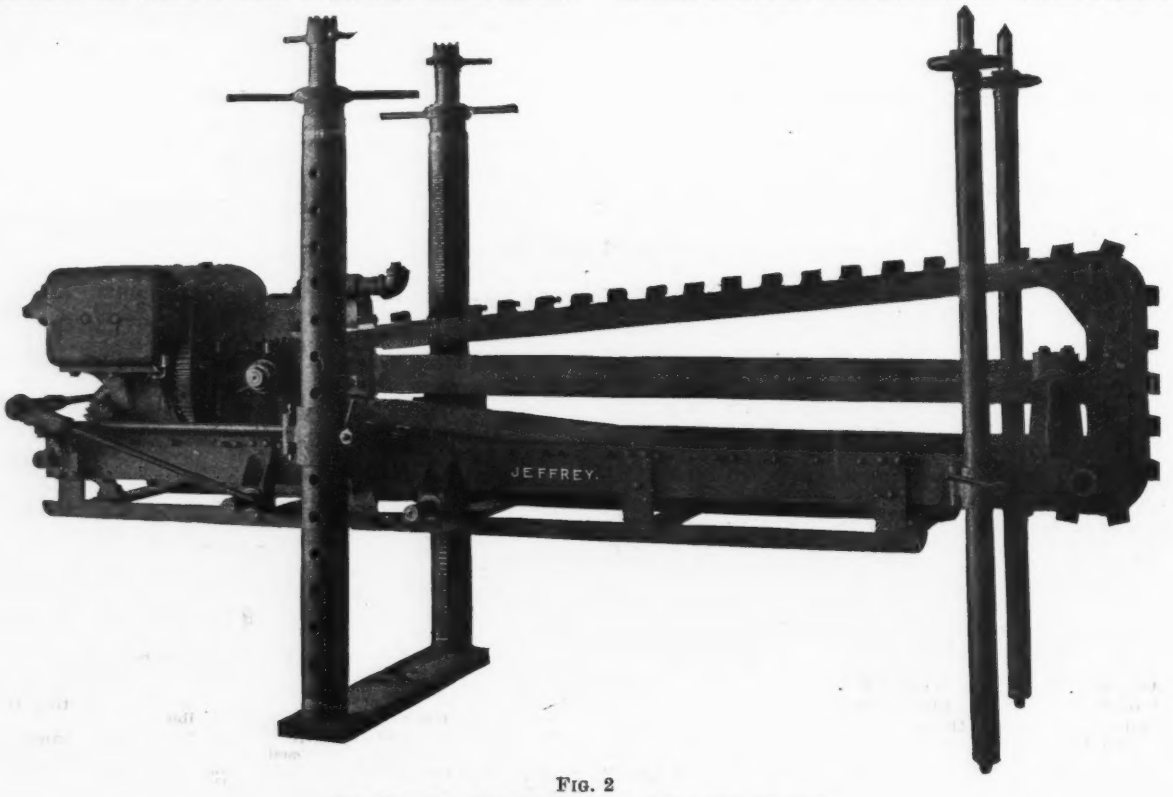


Fig. 2
The Jeffrey Electric Power Shearing Machine.

IMPORTS OF IRON ORE.—Imports of iron ore into the United States in February were 39,375 long tons. For the two months ending February 28th the imports were 72,728 tons, while in the corresponding period last year they were 181,021 tons. The decrease this year has been large, amounting to 108,293 tons, or 59.8 per cent.

LARGE MASONRY BRIDGE SPANS.—United States Consul-General Guenther, of Frankfort, Germany, under date of February 27th, 1901, reports that a masonry bridge is being constructed across the Valley of Petruffe, in Luxembourg, which will be the largest existing masonry bridge, 277-ft. span, and a 102-ft. rise. Previous to this, the largest masonry bridge span was the Cabin John Bridge, near Washington, 220-ft. span, 57½-ft. rise, and a height above the water of 101 ft. Following Cabin John Bridge comes the railroad bridge at Jarenge, over the Pruth, followed by the Grosvenor Bridge, over the Dee, at Chester.

MINERAL COLLECTORS' AND PROSPECTORS' COLUMN.

(We shall be pleased to receive specimens of ore and minerals, and to describe and classify them, as far as possible. We shall be pleased to receive descriptions of minerals and correspondence relating to them. Photographs of unusual specimens, crystals, nuggets and the like, will be reproduced whenever possible. Specimens should be of moderate size, and should be sent prepaid. We cannot undertake to return them. If analyses are wanted, we will turn specimens over to a competent assayer, should our correspondent instruct us to do so, and send the necessary money.—Editor E. & M. J.)

322.—Quartz.—H. L. A.—The specimen is simply ordinary cryptocrystalline quartz, white and brown. The brown portions are almost chert. The color is due to iron oxide.

323.—Minerals from North Carolina.—C. D. W. C.—Both your specimens contain at least two minerals and both specimens are too small for determination without analysis. Send larger pieces.

324.—Mineral Specimens from New Mexico.—J. R. W.—No. 1, the dirty yellow-green mineral in "fibrous stellated crystals," is actinolite. No. 2, the specimen is undeterminable without analysis. No. 3 is a quartz porphyry. It may be a rhyolite, but is not phonolite. No. 4 is a chert. It may have been formed from a limestone. No. 5, the pinkish-gray mineral with well-marked cleavage, is orthoclase feldspar. No. 6 is an altered igneous rock, a quartz porphyry carrying native copper and a pale-blue copper mineral, probably chrysocolla. No. 7 is probably not carnotite. The sample is too small for determination.

325.—Garnet.—T. B.—The brown mineral associated with graphite has the cleavage and general appearance of an ordinary iron-calcium garnet. The mineral is considerably altered and shows few crystals, the garnet being massive. The sample of black mineral is too small for determination.

QUESTIONS AND ANSWERS.

(Queries should relate to matters within our special province, such as mining, metallurgy, chemistry, geology, etc.; preference will be given to topics which seem to be of interest to others besides the inquirer. We cannot give professional advice, which should be obtained from a consulting expert. Nor can we give advice about mining companies or mining stock. Brief repiles to questions will be welcomed from correspondents. While names will not be published, all inquirers must send their names and addresses. Preference will, of course, always be given to questions submitted by subscribers.—Editor E. & M. J.)

Quotations on Manganese.—In your quotations on manganese ore I wish you would explain to me what the figure of ".30" means on domestic ore.—E. B. F.

Answer.—The quotations given are per unit or percentage of metal in the ore. The price for domestic manganese ore is therefore 30c. per ton for each unit, or 1 per cent. of manganese contained. Thus ore carrying 40 per cent. manganese would be $12 per ton; 50 per cent., $15 per ton; and so on.

Actinolite.—Can you give me any information as to the uses of the mineral actinolite; the demand for it and the possible market?—F. P. L.

Answer.—Actinolite is a mineral allied to asbestos. It might possibly be used for some of the purposes to which asbestos is applied, such as fireproof coverings and the like. It lacks, however, some of the qualities which asbestos possesses, especially the fiber which makes the latter available for manufacturing purposes. There is at present no commercial demand for the mineral.

Copper Mines in Colorado.—Are there any successful copper mines in operation in Colorado? If so, to what extent? Has the copper mining on Badger Creek and the Arkansas River near Salida assumed any proportions?—J. G. W.

Answer.—A good deal of copper is produced by the smelters from Colorado ores. This total was 10,614,252 lbs. in 1899, and 7,826,949 lbs. in 1900. This was produced from ores mined for other metals—gold, silver and lead—as their chief values. There is no important mine in Colorado known distinctively as a copper mine in the sense in which the Butte mines are so known; that is, which is worked mainly for its copper values, with silver or gold as a by-product of minor importance. In Colorado the copper is the by-product. The mines to which you refer are in the prospect stage yet, and have not reached the point where they can be called producers on any considerable scale.

RECENT DECISIONS AFFECTING THE MINING INDUSTRIES.

Specially Reported for the Engineering and Mining Journal.

EXTENT OF RIGHTS CONVEYED BY DEED.—A deed of the surface of a lot of land, excepting and reserving the coal, minerals and metals in, under and upon it, with right to mine and take out the whole of them without opening for or transporting them over the surface, conveys an open superficial stone quarry, access to which cannot be had profitably except over the surface. Where the reservation of a contract to convey real estate did not contain the word metals, but metals were reserved in the deed subsequently given, in the absence of a showing of fraud, accident or mistake, a deed will be presumed to be the final agreement of the parties.—Snowden vs. Cavanaugh (10 Kulp's Reports, 1); Court of Common Please of Pennsylvania.

CONVEYANCE OF MINERAL RIGHTS.—By an instrument under seal, duly acknowledged and recorded, an owner of land leased same for a term of 100 years for a fixed price, to be presently paid, and an annual rental of $1, the lease being conditioned as follows: "It being, however, clearly understood that the possession which the said lessee acquires under this lease shall extend only to the use of the leased premises as a coal-field; that is to say, the said lessee shall have full right, power and possession to search for coal anywhere on the leased premises, in any manner he may think proper, to raise the coal when found from the beds, at all times to enter and carry away the coal . . . and to sell same for his own benefit and profit. . . . These rights and privileges shall extend to the heirs . . . and assigns of the said lessee during the term aforesaid." The instrument further reserved the right to lessor and his heirs, so long as they resided on the leased premises, to dig whatever coal they might want for their own use, "but not to sell, so as to interfere with the works of said lessee." The court held that such instrument was a present demise, and though in terms a lease, operated not only to work a severance of the surface from the underlying coal, but as a sale of the coal with right of removal within 100 years, and that after such severance the continued occupation of the surface of the land by the lessor, and those claiming under him, did not create title in them to coal by adverse possession or by limitation. The title of the underlying coal having passed to the lessee, the possession was thereafter referable to such title, which could only be extinguished by actual adverse possession, distinct from possession of the surface. The failure of the lessee to enter and mine the coal for any length of time short of 100 years would not affect his title, nor would it be forfeited to the lessor by a failure to pay the annual rental for a number of years, in the absence of any provision for such forfeiture in the lease.—Plummer vs. Hillside Coal & Iron Co. (104 Federal Reporter, 208); United States Circuit Court of Appeals for Pennsylvania.

PATENTS RELATING TO MINING AND METALLURGY.

UNITED STATES.

The following is a list of the patents relating to mining and metallurgy and kindred subjects, issued by the United States Patent Office. A copy of the specifications of any of these will be mailed by the Scientific Publishing Company upon receipt of 25 cents.

Week Ending March 19th, 1901.

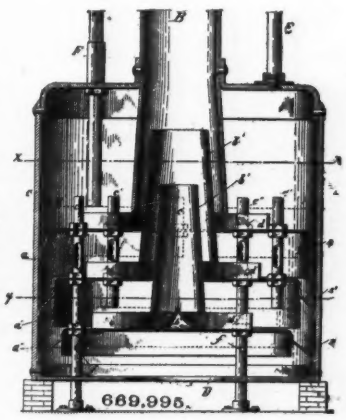
669,977. PROCESS OF PRODUCING BUILDING MATERIAL. Edward C. Brice, Colwyn, Pa. The process consists in subjecting comparatively refractory mineral earth, containing a mineral fusible material, to heat sufficient to partially fuse the same into plastic form, and while in such plastic form subjecting the mass to compression to solidify the same into a compact homogeneous brick, or block, and finally annealing said brick or block.

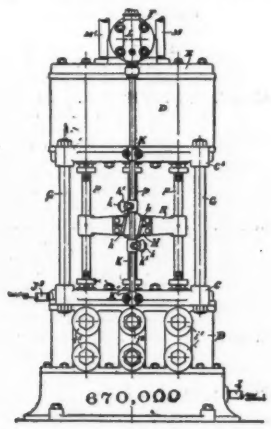
669,979. CONVEYOR-CHAIN. Ezra T. Bucknam, Tulare, Cal. A conveyor-chain comprising links pivotally connected, and adjustable screws engaged with the adjacent links to limit the pivotal movements of the links.

669,991 and 669,992. EXCAVATOR. Olaf Hetlesaeter, Chicago, Ill. The combination of a crane, a linkwork pivoted to said crane, and a separate member carrying a bucket, said member being extensibly and retractably supported upon said linkwork.

669,993. CEMENT FOR SHIPS' BOTTOMS. Adolph Johannsen, Flensburg, Germany. A mixture for coating ships' bottoms, composed of ordinary cement (such as Portland or Roman) and pulverized coke, to which an addition of finely-pulverized chalk and fine sawdust is made.

669,995. HYDRAULIC AIR-COMPRESSING APPARATUS. William J. Linton, Woodstock, Canada, assignor to John A. Inslee, St. Louis, Mo. In an air compressor in which a body of water flowing first downwardly and then upwardly is used as the compressing agent, means for introducing air into the descending body of water, means for





subdividing the said descending body of water and intermingled air before the separation of air therefrom, separate means for effecting the separation of the air from each of the subdivided portions of water, and means for conducting the air to any desired point or points of distribution.

670,000. AIR COMPRESSOR. Frank H. Merrill, Plainfield, N. J. An air compressor composed of three steam cylinders and three air cylinders, and steam and air pistons therein having a common connection so as to move together, both said steam and air cylinders being compounded and consisting of one high-pressure and two low-pressure cylinders.

670,021. PROCESS OF MAKING NITRITES. Rudolf Heinz, Hanover, Germany, assignor to Gebruder Flick, Opladen, Germany. A process for the manufacture of nitrites consisting in passing sulphur dioxide as free from air as possible over a highly heated mixture of a nitrite and an alkali essentially as described.

670,047. PROCESS OF MANUFACTURING LIME AND CARBONIC ACID. Gustaf M. Westman, New York, N. Y. A continuous process, which consists in expelling the carbonic acid from the limestone, bringing CO_2 in contact with water, to convert the latter into steam, and mixing the steam with the expelled carbonic acid, to form a mixture of carbonic acid and steam, and then reheating the mixture

and passing it through the limestone, whereby lime and carbonic acid of maximum purity are obtained, the entire amount of carbonic acid evolved and employed being recovered.

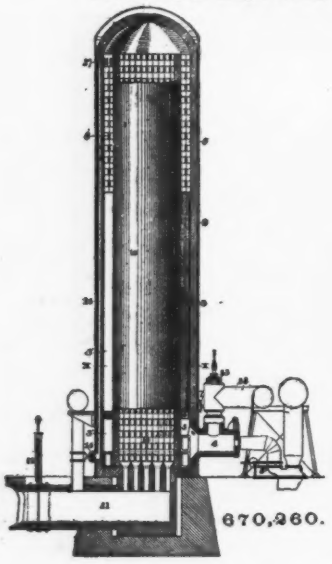
670,087. SHAKING SCREEN. Nathan Stedman, Aurora, Ind. In combination with a vibratory screen and supporting frame therefor, a transverse shaft carried by the frame, a plurality of strikers fixed to the shaft, adjustable buffer shoulders on the screen, and an arm fixed to the shaft and extending between the shoulders.

670,092. ORE CAR. George E. Woodbury, San Francisco, Cal. The combination with a truck and a tilting car-body mounted thereon, of a hinged door, rotary shafts having bearings on the sides of the car-body, a stationary rack on each side of the truck, a gear on the shaft in mesh with the rack adapted to be rotated by rolling contact with the rack, and a locking-cam on the outer end of each shaft having curved ends provided with beveled inner faces.

670,116. GRINDING MILL. Thomas L. Sturtevant, Quincy, and Thomas J. Sturtevant, Newton Center, Mass. The combination with a mill casing having a feed inlet and a discharge opening, of rotating reducing means within said mill casing, an inclined screen box or casing located outside the said mill casing and on the upwardly-running side of said rotating reducing means, said screen box or casing having a closed upper end and an inclined upper side against which latter the material is mainly projected by the rotating parts of the mill, the chamber of said screen box communicating with the chamber of said mill casing through said discharge opening, and an inclined screen in said screen box which receives the reduced material deflected from the upper side of the screen box, and which inclined screen is at a distance from and is thus independent of the said feed inlet to the mill casing, so that it is not subjected to wear by the incoming coarse or unreduced material.

670,140. PROCESS OF TREATING SULPHUROUS ARSENIC ORES. Elias Petersson, Brussels, Belgium, assignor to the Intractable Ore Treatment Company, Limited, London, England. A process of treatment of sulphurous ores containing arsenic as sulphide in addition to other metals, consisting in pulverizing the ore, in mixing the same with carbon likewise pulverized, and in heating the mixture in a retort or muffle to which all inlet of air or other gas is precluded, and in continuing the heating until the arsenic in the mixture has been driven off from the ore as sulphide, without material reduction, and expelled from the retort.

670,152. GAS PRODUCER. Samuel Forter, Pittsburg, Pa., assignor to the Forter-Miller Engineering Company, same place. In gas producers,



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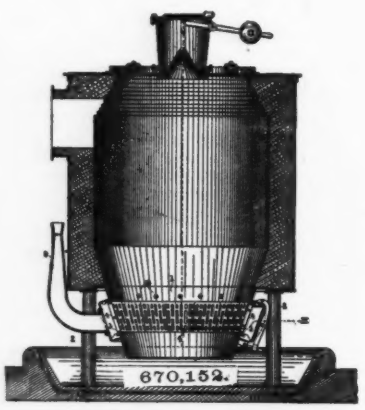

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a hopper base, detachable grates secured within said hopper base, a wind box encircling said hopper base, and means for forcing air into and from said wind box.

670,155. CONVEYOR. Alexander D. Jansen, Johannesburg, South African Republic. An improved conveyor, consisting of a car adapted to run upon a wire ropeway stretched between two towers, one fixed and provided with a turn-table at its top, and the other mounted on trolleys running on rails radially laid, the top of each head gear to which either end of the said wire rope is stretched being secured by anchor ropes affixed to traveling anchorages, so that the conveyor may be turned so as to work at any angle.

670,156. PROCESS OF PREPARING SILVERING LIQUID. Constant Laval, Allegheny, Pa., assignor of one-half to J. W. Peters and C. M. Suter, same place. The process consists in mixing nitrate of silver, water and ammonia and filtering the same; forming separate mixtures of potassium and sodium tartrate and nickel sesquioxide and boiling and filtering the same; and finally mixing equal parts of the filtered solutions with water.

670,171. DUMPING CAR. Charles Barrett, Somerville, Mass. A dumping car comprising a car-body, a truck frame, a transom bolt and a hinge plate.

670,198. LEAD COMPOUND AND METHOD OF MAKING SAME. Minnie M. Dubin, Philadelphia, Pa. In the manufacture of nitrite of soda the process of decomposing the sodium plumbate formed from the nitrite of soda, consisting in treating the solution with sulphide of a metal of the alkaline-earth group.

670,201. PROCESS OF PRODUCING ZINC OXIDE AND NITRITES. Edward D. Kendall, Brooklyn, N. Y., assignor of one-half to Ferdinand F. Cimiotti, New York, N. Y. The process of reducing zinc oxide and a nitrite or nitrites, by electrolysis, which consists in subjecting an electrolyte consisting of an aqueous solution or bath of a nitrate or nitrates to the action of an electric current passing between an anode formed of zinc and a cathode formed of suitable material.

670,212. IRON SHAFT FURNACE FOR BURNING CEMENT, ETC. Ewald H. Stein, Sablon, near Metz, Germany. In an iron shaft furnace, a base, a jacket supported thereon, a burning shaft within the jacket, air inlets below the jacket leading to an air space between the latter and the burning shaft, air inlets intermediate of the jackets leading through the wall thereof to said air space, said inner shaft comprising three sections separated by openings leading through the wall of the same, and means for supporting the sections from the outer jacket.

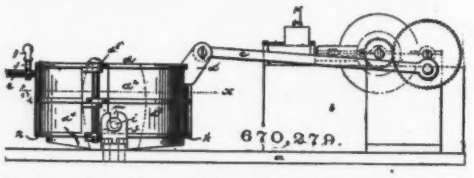
670,219. STONE SAWING MACHINE. Edwin I. Bell, Portland, Conn., assignor to the Patent Diamond Gang Saw Company, same place. The combination of a saw carrier supporting one or more saws, means whereby the feeding of granular material to the work is permitted simultaneously with the sawing of such work.

670,259. GAS GENERATOR. James Trullinger, Bakersfield, Cal., assignor by mesne assignments to Caton's Foundry & Machine Company, San Jose, Cal. An inclosing drum, a flue arranged in the drum, a vaporizer carried by the flue and constituting a part of the passageway therethrough, said vaporizer being provided with an exterior corrugated surface, means for directing heat through the passageway of the flue, and means within the vaporizer for deflecting the heat against the inner wall thereof.

670,260. HOT-BLAST STOVE. Fred W. Waterman, Elyria, Ohio. The combination of an annular combustion chamber, a gas inlet, a gas-inlet chamber connected to the gas inlet and having a series of ports of increasing areas, according to their distance from the gas inlet, and opening into the combustion chamber, air inlets opening into the combustion chamber, and a central offtake flue.

670,271. WIRE-ROD MILL. Andrew J. Day, Pittsburg, Pa. The combination with sets of rolls arranged to revolve in opposite directions, of repeater mechanism arranged to deliver the rod from one set of rolls to a succeeding set.

670,279. CRUCIBLE SHAKER. John Illingworth, Newark, N. J. The combination with a crucible shaker having trunnions and a supporting bed plate having bearings formed thereon for said trunnions, and strike bearings disposed near said trunnion bearings to be engaged by the crucible shaker or the crucible therein to effect a jarring



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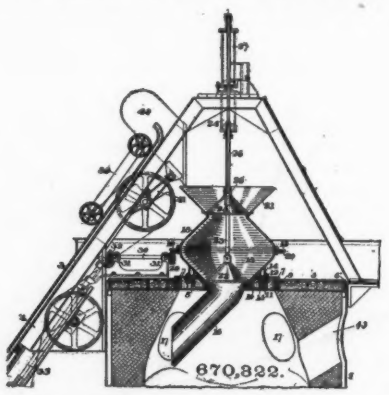
of the crucible and a settling of its charge of metal, said shaker or holder being arranged in relation to said strike bearings, and adapted, when reciprocated, to effect a jarring engagement with said strike bearings, of an engine, and connections adapted to rock said crucible shaker reciprocatingly and cause a settling engagement or strike at the end of the reciprocal movements.

670,299. MANUFACTURE OF ARTIFICIAL STONE. Wilhelm Schwarz, Zurich, Switzerland. The process consists in completely drying the sand in vacuo, then adding lime to the dried sand and mixing in vacuo and adding moisture thereto.

670,322. BLAST-FURNACE CHARGING APPARATUS. Julian Kennedy, Pittsburg, Pa. A blast furnace having a top-closing plate with a central hole opening into the gas chamber of the furnace, a re-



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voluble hopper centrally mounted above the hole and provided with a downwardly-extending inclined chute arranged to deposit material within the furnace chamber, mechanism for stopping the flow of gas through the chute and mechanism for turning the hopper.

670,346. PROCESS OF TREATING NITRO-CELLULOSE. Alfred Luck, Dartford, County of Kent, and Charles F. Cross, County of London, England. The process of reducing nitro-cellulose to an approximately structureless condition for the manufacture of explosives, or for other purposes, which consists in subjecting the nitro-cellulose in its original fibrous form to the action of a diluted solvent in a sufficient quantity to cover the nitro-cellulose to render it structureless, in greater or less degree, and simultaneously therewith remove the impurities, and finally washing.

670,350 and 670,351. PROCESS AND APPARATUS FOR ELECTRO-ENDOSMOTICALLY FREEING MATERIALS FROM FLUIDS. Botho Schwerin, Munich, Germany. An apparatus for electro-endosmotically freeing mineral, vegetal and animal materials from fluid, composed of a vessel constructed with electrically-conductive side walls forming opposite electrodes, of which at least the negative is permeable to fluid, and a conveying device located within said vessel between an inlet for the material to be treated and an outlet for the material treated.

670,399. APPARATUS FOR PUMPING AIR OR GAS. Joseph B. Hilliard, Glasgow, Scotland. In combination, a pump, two liquid reservoirs of U-shape, partially filled with liquid, pipe connections connecting the reservoirs and the pump together, a chamber connected with the reservoirs, admission and emission valves.

670,402. MOLD FOR ARTIFICIAL STONE. Ernst E. von Hedemann and Rosenoern von Hedemann, Copenhagen, Denmark. The combination of a pair of molds set at right angles, the inner or opposed walls of adjoining molds being connected and adjustable together directly to or from the outer walls thereof.

GREAT BRITAIN.

The following is a list of patents published by the British Patent Office on subjects connected with mining and metallurgy.

Week Ending February 23d, 1901.

5,644 of 1900. ALUM MANUFACTURE. Peter Spence & Sons, Manchester. Method for the manufacture of soda alum.

8,184 of 1900. BLAST FURNACE. C. Goedecke, Minden, Germany. A blast furnace increasing in diameter from bottom to top, suited for smelting finely-divided ores.

21,195 of 1900. ASSAY FURNACE. D. Laird, Forfar. Assay furnace using liquid fuel or gas under pressure.

21,345 of 1900. ALUMINUM-MAGNESIUM ALLOY. Dr. L. Mach, Berlin. An alloy of aluminum with 2 to 10 per cent. of magnesium, to be rapidly chilled after pouring.

21,557 of 1900. ELECTROLYTIC CELL. M. Meslans, Paris, France. A form of electrolytic cell for the production of fluorine.

PERSONAL.

Mr. A. H. Tarbet, of Salt Lake City, has been on a visit to Butte, Mont.

Prof. Edgar Kidwell, of the University of California, is visiting Butte, Mont.

Mr. John Byrne was recently re-appointed state mine inspector of Montana by Gov. Toole.

Mr. George Green, son of Mrs. Hetty Green, of New York, is in California looking after mining interests.

Mr. W. G. Douglass succeeds Mr. C. Belknap as superintendent Justice Mine, Virginia, Nev.

Mr. R. R. Trezona, head mining captain of the Mass Consolidated Mine, Mass City, Mich., has resigned.

Mr. T. A. Rickard has been spending a short time in New York on business and has returned to Denver.

Mr. S. J. Sullivan has just returned from old Mexico to Leadville, Colo. He has large mining interests in both places.

Colonel Millard Hunsiker, the European representative of the Carnegie Steel Company, sailed for Europe April 2d by the "Kaiser Wilhelm der Grosse."

Mr. Thomas Bonathan has resigned his position as head electrician at the Tamarack and Osceola Mill and will become assistant superintendent of the Mass Mill at Keweenaw Bay, Mich.

Mr. Phillip Argall, formerly of the old La Plata mines of Leadville, is renewing old acquaintances in Leadville after a long absence. He is now at the head of a big cyanide plant at Florence, Colo.

Mr. S. W. Eccles, traffic manager of the American Smelting and Refining Company, was a visitor to Leadville from New York last week and was greatly pleased with the company's immense Leadville plant.

Mr. W. M. Brook left Seattle March 29th for Skaguay, Alaska, en route to mining claims in Atlin District in which he is interested. Mr. F. T. Hamshaw, of Barkerville, Cariboo District, B. C., accompanied him.

Mr. John J. Vandemoer, for over 10 years past representative of the "Engineering and Mining Journal" in Denver, Colo., is enjoying a well-earned vacation, and is at present in New York. He expects to return to Denver about April 20th.

Mr. Edwin Reynolds, general superintendent and second vice-president of the E. P. Allis Company, of Milwaukee, Wis., on his 70th birthday recently was given a magnificent desk and set of mahogany office furniture by the company's employees.

Mr. Robt. B. Estey, of Leadville, Colo., resigned April 1st as manager of the Rialto Mining Company. Mr. Estey states that other interests demanded too much of his time. A number of the Boston stockholders are expected in Leadville this week.

Dr. Francis M. Simonds, of Simonds & Wainwright, mining engineers and assays, of New York, has just returned to that city from a three weeks' professional trip to Nova Scotia and Newfoundland. He will shortly go to the Southern States to examine mineral properties in that section.

Mr. James Bowron, at present vice-president and treasurer of the Tennessee Coal, Iron and Railroad Company, who will be succeeded as secretary-treasurer by Mr. L. T. Beecher, is interested in several concerns in the Birmingham, Ala., district, including a large independent cast-iron pipe manufacturing plant, a large banking institution in Birmingham, a land company at Bessemer, Emsley, and other places in the district, and in other matters.

OBITUARY.

William Polley, a veteran mining prospector and civil engineer, died in New York City March 29th, after undergoing an operation. For more than 20 years he had been prospecting for gold in British America for different syndicates of New York capitalists. He was 66 years old and is survived by a widow and a son.

SOCIETIES AND TECHNICAL SCHOOLS.

University of California.—Thirty-four students, most of them belonging to the College of Mining, are about to start on the annual department excursion through the mines of the Mother Lode region. They are to be gone eight days, inspecting each day as many mines and gold-bearing formations as can be conveniently visited.

Alabama Scientific and Industrial Society.—At a meeting in Birmingham recently a proposition to disband was discussed. It was decided, however, to keep up the organization and work up renewed activity. The society has some enthusiastic members, but the meetings have not been well attended. Some excellent papers have been submitted at times and been more or less discussed elsewhere. Dr. E. A. Smith, the State geologist, was instrumental in keeping the Society from going out of existence, and he will make strong efforts to revive interest.

Engineers' Club of St. Louis.—At the meeting on March 23d 24 members and 4 visitors were present. The subject of the evening was an informal address by Mr. S. Bent Russell on "Revetment of River Bank at the Chain of Rocks by the St. Louis Water Department." Maps and general plans were exhibited showing the conditions and scheme of construction. Lantern slides were also exhibited, showing the progress of the work at different times, the plant used in the work, etc. The work is estimated to cost when complete about $80,000, and has extended over a period of about 4 years. The bank protected is about 6,000 ft. long and from 25 to 30 ft. in vertical height. The points of greatest interest are, the use of gravel concrete in the place of the usual rip-rap on the upper bank, and the method used to prevent the revetment being undermined at the toe of the slope where the work rested on soft material. These methods include rip-rap dikes, brush mattresses, and aprons made of sawed lumber bound together with wire cable and sunk with rip-rap. Another point of interest is the treatment of the bank where it showed a disposition to slide or slough off.

Engineers' Club, of Philadelphia.—At the meeting on March 16th there were 77 members and visitors present.

Mr. John C. Trautwine, Jr., described the "Queen Lane Reservoir," the last of a series of papers on the Queen Lane Division of the water works of Philadelphia, which were pre pared for the club by present or former officials of the city's Bureau of Water.

This reservoir, which was begun in October, 1892, and practically completed in 2 years, was found to leak when the water admitted to it reached a depth of 10 ft. It was afterward improved by building a concrete footing wall to a firm foundation under the outer slopes entirely surrounding the basin, and by covering the inner slopes with 2 layers of melted asphalt, having between them a sheet of burlap anchored at the top, and by adding to the floor of the reservoir 2 in. of asphalt concrete with a top coating of melted asphalt. The characteristics of the site of the reservoir, its original and modified design, the material used in its construction and the method of making the subsequent repairs were fully described and illustrated by a large series of views.

INDUSTRIAL NOTES.

The American Steel and Wire Company has received a $17,000 order for the shipment of wire nails to Port Arthur. The order was secured through M. S. Friede, of New York City.

Among foreign orders recently filled by the Baldwin Locomotive Works of Philadelphia, Pa., was one for 3 standard gauge Mogul engines for the Eastern Algerian Railway. The company is about to ship 20 locomotives to West Australia.

At the annual meeting of the stockholders of the Carborundum Company, of Niagara Falls, N. Y., recently, the old board of directors was re-elected, as follows: E. C. Acheson, A. W. Mellon, R. B. Mellon, F. W. Haskell and Geo. R. Rayne.

The Pittsburg (Pa.) Seamless Bottle Company has awarded contracts to Wm. B. Scaife & Sons, of that city, to design, manufacture and erect the buildings of its new glass factory at Everson, Pa. Steel frame construction is to be used throughout.

Thayer & Company, of New York City, have secured a contract for the supply of a 500-H. P. boiler plant, which will be installed in the Municipal Water-Works, Shanghai. The boilers are to be manufactured by the Aultman & Taylor Company, of Mansfield, O.

Messrs. Fraser & Chalmers, of Chicago, announce that they have recently appointed Mr. George E. Ames as their Western representative, with headquarters in San Francisco, Cal. Mr. Ames, who succeeds Mr. Robert M. Mein, has opened offices at No. 137 Montgomery St.

The Robt. Aitchison Perforated Metal Company, of Chicago, has closed a contract which will require about 60 tons of sheet steel. From the present outlook the company thinks 1901 will be the best year it has had. With increased facilities, however, the company can handle all the business that comes.

The East Indian Railway authorities have given orders to American concerns for the installation of an electric light and coal-cutting plant at its collieries. The Jeffrey Manufacturing Company, of Columbus, O., is said to have obtained the order for an electric coal-cutting equipment, while the Buckeye Engine Company, of Salem, O., is to furnish the engine plant.

The blowing engines for the new blast furnace of the Colorado Fuel and Iron Company at Pueblo, Colo., have been received and will be placed in position immediately. There are 4 of the engines, which are the largest ever seen in the West. The engines have a capacity of over 5,000 H. P. and were built by the Tod Company, of Youngstown, O. Work on the 4 stoves for the other new furnace is going ahead rapidly. A fine engine house is being erected by the American Bridge Company.

At the annual meeting of the National Steel Company stockholders, held at East Orange, N. J., recently, Henry Wick was elected president in place of William E. Reis. The other officers are: first vice-president, W. T. Graham; second vice-president, F. S. Wheeler; secretary and auditor, W. H. Baldwin; assistant secretary and treasurer, H. B. Wheeler. Mr. Wick will continue as chairman of the executive committee. No financial statement was presented in view of the absorption of the company by the United States Steel Corporation.

Westinghouse, Church, Kerr & Company, of New York City, have been awarded a contract for a steam plant to be installed at the Piesa Lesa electric lighting station at Lima, Peru. The 200-H. P. boiler will be built by the Babcock & Wilcox Company, of New York City, and the pumps by the Deane shops of the International Pump Company, while the condensers will be of Worthington manufacture. The contract also calls for a 16-in. compound engine, which will be built by the Westinghouse Machine Company, of Pittsburg.

The Harrisburg Foundry and Machine Company, of Harrisburg, Pa., has been awarded a contract for a 200-H. P. steam plant for driving machinery at the Yubari coal mines near Yokohama, Japan. The contract was secured through the New York office of Mitsui & Company. The Harrisburg works are also about to execute an order for 300-H. P. engines to be furnished the central generating station of the Sydney Tramways Company, Australia, and will supply 2 500-H. P. automatic engines to drive dynamos at the works of the Compania Sundidora de Hierro y Acero of Monterey, Mex.

The Crocker-Wheeler Company, with works at Ampere, N. J., reports that the orders booked in March are the largest the company has had at any time during its entire history. Among the more important contracts are the following: Philadelphia Engineering Works, 500 H. P. in Crane motors; Messrs. Witherbee, Sherman & Company, 1 size 150 D, 150-Kw. belted-type generator and 160 H. P. in motors; General Electric Company (1900), Ltd., Glasgow, Scotland, 1 size 150 D, 150-Kw. belted-type generator; Newport News Shipbuilding and Dry Dock Company, 2 size 15 D dynamotors, 1 size 7½ bipolar dynamotor, 1 size 25 D dynamotor; New United States Mint at Philadelphia, 19 motors aggregating 115 H. P.; Newton Street Railway, Newton, Mass., 1 size 448 engine-type, 400-Kw. railway generator; Guggenheim Smelting Works, Perth Amboy, N. J., 2 size 448 engine-type, 520-Kw. electrolytic generators; Alsen's American Portland Cement Company, of West Camp, N. Y., 3 size 448 engine-type, 400-Kw. power generators, 1 size 168 engine-type, 100-Kw. lighting and power generator, and 43 motors, aggregating 2,000 H. P.; Brandywine Traction Company, Brandywine, Pa., 1 size 224 engine-type, 200-Kw. railway generator; John B. Stetson Company, Philadelphia Pa., 2 size 336 engine-type, 300-Kw. lighting and power generators; Western Union Company, 36 machines for telegraphic work.

TRADE CATALOGUES.

The Broderick & Bascom Rope Company, of St. Louis, Mo., is sending to its friends some novelties reminding them of the wire rope that it manufactures. One of these reminders is a combination calendar and postage stamp book for the vest pocket.

"A Modern Corliss Engine," a paper read before an industrial society in Texas, is sent out by the Lane & Bodley Company, of Cincinnati, O. The engine referred to is the Columbian Corliss engine having double port opening valves and elevated dash pots.

Rudolph Brandt, of New York City, manufacturer of Selden patent packing, states that the demand for the vest pocket memorandum books which he has issued this year has been so much greater than expected that he has ordered an increased quantity and will be pleased to furnish them to managers, superintendents and engineers who will send him their names and addresses.

The improved Cammett concentrator is de-

scribed in Bulletin No. 1004, issued by the Denver Engineering Works Company, of Denver, Colo. The pamphlet contains illustrations showing details of construction, such as riffles and grooves, head motion, base frame and counter shaft, and also gives dimensions and working drawings.

The Chicago Pneumatic Tool Company, of Chicago, Ill., publishes a 48-page pamphlet containing many half-tone cuts showing Boyer hammers, drills and riveters used in foundry work, in bridge work, or in ship building, and the kind of work done with the Boyer stone hammer. The company manufactures also the Chicago motor chain hoist and the Chicago rock drill.

The Stanley Electric Manufacturing Company, of Pittsfield, Mass., has issued Bulletin No. 114, which illustrates and describes the S. K. C. frequency changer, a single machine for accomplishing what its name implies. In addition to altering the periodicity, it can be arranged to deliver current of a different phase relation and voltage from that which is supplied. Bulletin No. 115 contains diagrams and a description of high-voltage testing sets arranged for pressures up to 120,000 volts. Either or both of these bulletins will be mailed by the company upon request.

Joseph R. Lehmer, of Omaha, Neb., dealer in mill, railway and mine supplies, including steam engines, pumps, light rails, etc., is sending out printed matter calling attention to the goods carried in stock. Mr. Lehmer represents the Illinois Steel Company, the Lake Erie Iron Company, the Joseph Dixon Crucible Company, the Page Belting Company, the Warren Steam Pump Company, of Warren, Mass., the White Manufacturing Company, of Chicago, Ill., The Columbia Incandescent Lamp Company, of St. Louis, Mo., the Laflin-Rand Powder Company, the Peerless Rubber Manufacturing Company, of New York City, and other well-known concerns.

The Weller Manufacturing Company, of Chicago, publishes a neat-appearing volume of 400 pages describing the elevating, conveying and power-transmitting machinery it manufactures or carries in stock. Illustrations show the Weller belt conveyor at work at docks, in mills, or boiler plants. This belt is provided with reversible self-propelling tripper, movable loading hopper, special take-up boxes, etc. The company also makes live roll and chain conveyors, lumber conveyors, helicoid conveyors, steel pan conveyors and apron conveyors. The company installs rope transmission devices, including manila rope transmission with improved friction clutches and long-distance rope drives. The company manufactures ore cars, revolving screens and other mine and mill supplies and carries in stock a complete line of conveyor fixtures.

MACHINERY AND SUPPLIES WANTED.

If any one wanting machinery or supplies of any kind will notify the "Engineering and Mining Journal" what he needs he will be put in communication with the best manufacturers of the same.

We also offer our services to foreign correspondents who desire to purchase American goods of any kind, and shall be pleased to furnish them information, catalogues, etc.

All these services are rendered gratuitously in the interest of our subscribers and advertisers; the proprietors of the "Engineering and Mining Journal" are not brokers or exporters, and have no pecuniary interest in buying and selling goods of any kind.

GENERAL MINING NEWS.

ARIZONA.

Conconino County.

Coconino Copper Company.—This company has been incorporated under New Jersey law with an authorized capital stock of $6,000,000, to purchase all the property and assets of the Coconino Syndicate. These, the charter says, consist of thirty-one or more claims, with appurtenances, also mining claims, smelters, refineries and mills. The incorporators are Daniel Grant, of Faribault, Minn., Lawrence P. Boyle, of Chicago, and Judge Noonan, of Jersey City.

Gila County.

Grand Prize Copper Company.—This New York company has taken over the Grand Prize group of 8 claims in the northern part of Tonto Basin, 11 miles north of Payson and 6 miles south of Pine. The group is said to show a good body of oxidized copper ore near the surface and copper sulphides at water level. The company proposes to erect an 80-ton smelting plant on the ground. It is claimed the ores carry considerable gold and silver.

Yavapai County.

Badger.—R. H. Bruner, of Big Bug, is developing this group, on the Agua Fria, 3 miles east of Huron. It comprises 5 claims.

Cyrus.—This claim, at the lower end of Big Bug Gulch, which belongs to Mayer, Thornton & Kingsley, has a shaft 420 ft. deep on the vein, and shows a body of copper sulphide ore, 2 cars of which ran 23% copper.

Empire Gold Mining and Milling Company.—This company is working a group of claims in Groom Creek District, 9 miles from Prescott. The vein worked contains free gold, with lead and iron sulphides. A 10-stamp mill using oil as fuel for the boilers is running. The values not saved by amalgamation are mostly recovered in a cyanide plant. The ore is said to average $11 per ton. S. S. Jones is superintendent.

Jerome Power Company.—This company, in which H. J. Allen and other Jerome men are interested, proposes to run 9 miles of ditch, flume and pipe line to take water from Oak Creek and convey it to a power plant, where 4 water wheels will produce 500 H. P. each. Here an electric light and power plant will be installed to supply the mines and smelters at Jerome, 12 miles away.

Monte Christo.—This company on Groom Creek is sinking a shaft, down 150 ft., on a vein 2-ft. wide carrying gold, silver and lead. H. Blauvelt is manager.

Penn Gold Mining Company.—This company is working the Mudhole Mine near Walker, in Lynx Creek District. An incline shaft 500 ft. deep shows a vein from 5 to 15 ft. wide, carrying lead, iron and zinc sulphides. The vein is a contact between granite and rhyolite, and the vein stuff is a talcy material. At the 40-ton mill 8 to 10 tons of ore are reduced to 1 ton of concentrates. F. W. Giroux has charge of the mill.

Senator.—The 20-stamp mill at this mine, near Prescott, is about to start up.

Zika Development Company.—This Boston, Mass., company is working the Richinbar Mine at Richinbar on the Agua Fria River, 16 miles southeast of Hayer Station. The main vein is exposed by the Agua Fria Canyon to a depth of nearly 800 ft. A shaft is down 550 ft. and considerable drifting, but no stoping, has been done. A large stamp mill may be erected, the ore being largely free milling and the vein of good size. About 35 men are busy under G. W. Middleton, manager.

CALIFORNIA.

Amador County.

(From Our Special Correspondent.)

Balliol.—Over 50 men have been laid off at this mine, east from Sutter Creek, as the mill cannot be kept running while sinking and other extensive development work is going on. The full force will be on again in a few months.

Oneida.—Day and night shifts are drifting on the 1,800-ft. level, and stoping is going on, on the 1,500, 1,700, 1,800 and 2,000 ft. Work still goes on in the new shaft and a large amount of sulphurets is being sacked.

Price.—This property, 3 miles north of Plymouth, is under bond to San Francisco parties. Four men are employed. A hoist will be erected.

Calaveras County.

(From Our Special Correspondent.)

Albany.—The ore in the face of the tunnel in the present workings is high grade and it is said that development work will be pushed to intersect the ore bodies supposed to exist.

Alto.—The big dam for this mine at the junction of Little John and Clover Creeks, near Telegraph City, is about completed. This dam, designed by Joseph Gozzola, is 250 ft. long and 40 ft. high; the bottom, 90 ft. in width, rests on 8 ft. of solid cement. The work has occupied 70 men about 6 months. When filled to full capacity the water will run the mine and mill for 9 months. An 18-in. pipe 7 miles in length connects the reservoir with the mine.

Batista.—This property in Wet Gulch near Mokelumne Hill, owned by W. H. Mendenhall, has yielded several thousand dollars from pockets in a distance of 100 ft. along the ledge.

El Dorado County.

(From Our Special Correspondent.)

Mount Hope.—At this mine 3 miles north of Grizzly Flat, a new pipe line 1,800 ft. in length is being laid to convey power to a shaft at the north end. Compressed air runs the large machine drills. A 10-stamp mill is in operation on ore taken out during prospect work. W. R. Pearson is superintendent.

Kern County.

(From Our Special Correspondent.)

A new water system is going in about 4 miles east from Johannesburg. The water comes out of the mountain, 275 ft. above the town.

Big Blue.—This group of quartz mines 1 mile north of Kernville, owned by J. P. Jones, is being developed. A new hoisting plant is being erected in place of those which burned down some years ago. A 10-stamp mill is to be installed.

Hawkeye.—Twenty tons of rich ore are on the dump at this mine 3 miles southeast from Randsburg. The property is being operated by Bently & Zandt, who are sinking with good prospects.

Yellow Aster.—Both water reservoirs have been completed and when dry will be filled with water. Men are covering the pipe line with earth before the hot weather sets in. The Goler well has been sunk 15 ft. deeper. The new gas engine installed in No. 2 shaft about 240 ft. lower than the present one will enable the company to sink to the 1,200-ft. level.

Mariposa County.

(From Our Special Correspondent.)

Alive.—J. D. Ludwig, lessee, is taking some rich ore from this mine. The property belong to the Mariposa Commercial and Mining Company, which company will resume possession in a few weeks. The Long Mary near the above is being worked by Lord & King, who are at a depth of 80 ft. in good ore.

Nevada County.

(From Our Special Correspondent.)

Campbell.—In the north drift from the 200-ft. level, a rich body of free-milling ore has been opened. The ledge is 4 ft. wide and shows good values. A stamp mill is to be erected at once.

Jackson.—This copper claim, at Spenceville, has been bonded to an Eastern syndicate which is now taking out ore said to assay 25% copper.

Placer County.

(From Our Special Correspondent.)

Jupiter.—Sixteen men are employed at this drift mine near Iowa Hill. The channel where they are working is 40 ft. wide. The property comprises 700 acres. H. F. Calenberg is superintendent.

Plumas County.

(From Our Special Correspondent.)

Twelve-Mile Bar Company.—On the property of this company on East Branch of the Feather River, the bedrock tunnel has been driven ahead 160 ft., from which point an upraise was made to the gravel which was found to yield $4.50 to the carload. Two shifts are worked. Geo. Gaberel is superintendent.

San Bernardino County.

(From Our Special Correspondent.)

About 15 miles east from the Burcham Oil Camp the season is likely to be a good one for dry gold washers. Many miners have wintered there and many are expected to rush in this month.

Old Woman's Mountain.—In this district about 8 miles southeast from Danby, a number of promising claims are being developed and some ore going as high as $20 to the ton is being shipped to the smelter at Needles. Among other mines producing are the Davida, Hunter, Paymaster and Silverware.

Shasta County.

(From Our Special Correspondent.)

Clover Creek Quicksilver.—This company has 5 men at work on its property on Clover Creek, northeast of Millville. Samples of ore are said to be high grade and prospects are good.

Harrison.—This group of copper claims on Upper Cow Creek have been bonded to J. M. Turner, representing foreign capital, for the sum of $45,000 until November 10th. A large force of men will be employed on development.

Siskiyou County.

(From Our Special Correspondent.)

Black Bear.—The new owners of this mine on Black Bear Creek, 8 miles from Sawyer's Bar, will sink a large shaft. Rich ore is being hoisted and the mill is to start up on a 500-ton run.

Siskiyou Hydraulic Mining Company.—This company employs 100 men on preparatory work for the 2 large hydraulic plants, one on the South Fork and the other on the Wildcat. Large ditches and flumes are being constructed to furnish water to the monitors. Buildings are also being erected for the employees. One claim under the management of J. O. Rusby is being worked with 2 giants and others will be in operation within 3 months.

Trinity County.

(From Our Special Correspondent.)

Boulder.—This mine has been opened up by open cuts to a depth of 150 ft., showing 3 pay shoots carrying high-grade ore. The present work is under the management of Geo. C. Carson, who took charge 2 years ago, and was the first to locate the vein, although the property had been prospected for many years.

Ralston.—This mine near Dedrick is being opened up by 2 tunnels, one in 350 ft. and the other 200 ft., giving about 400 ft. of backs. The ledge is 7 ft. wide carrying free gold and sulphurets. It is the intention of the management to put in an additional 5 stamps and concentrators. C. L. Bailey is superintendent.

Tuolumne County.

(From Our Special Correspondent.)

Arbona.—The main shaft at this mine at Tuttletown is down over 600 ft. and drifts are being run north and south on the 4th, 5th and 6th levels. Compressed air and power drills are used. The pumps keep the mine free of water.

Mountain Lily.—The last clean-up for an 18-

day run with a 5-stamp mill at this mine was $2,400. The group is located about 5 miles northeast from Columbia and is opened up by 3 tunnels which intersect the Mountain Boy, 3 ft. wide, Graham, from 6 to 13 ft. wide, and the Mountain Lily veins. The 10-stamp mill operated by water power is steadily busy. Free water is obtained from Five-Mile Creek. An upraise from the lower tunnel is being made, and stoping is in progress.

Reward Mining Company.—This company has purchased the Blue Bird Mine, one mile west of the Buchanan Mine, 11 miles from Sonora. There is a good showing of ore and a mill will be erected at once. The ledge is about 7 ft. wide. The company has take up a water right. F. F. McAvoy is superintendent.

Santa Ysabel.—Arrangements are being made to reopen this mine on the north end of Quartz Mountain. About 2,000 ft. of air pipe has been laid, connecting the compressor with the shaft to convey power for operating the machine drills. The company has an electric hoist.

Shawmut.—The chlorination works are about completed and ground is prepared for an additional 10 stamps. The plant will be very complete when finished.

Zealandia Gold Mining Company.—This company has been developing the old Continental Mine at Columbia, and has driven the tunnel in 600 ft. and drifted on the Crab Vein, showing up an ore body from 6 to 10 ft. wide averaging $5. A. S. Grahame is superintendent.

COLORADO.

Coal Miners' Strike.—The strike is practically about ended. All the mines of the Colorado Fuel and Iron Company are now working. The Canyon City miners surrendered unconditionally. The labor agitators apparently have given up all hope of organizing the company's mines for a general strike.

Gilpin County.

(From Our Special Correspondent.)

Mining Deeds and Transfers.—E. J. Adams to John Goldberg, ¼ interest in Pacific and Cordova Lodes and 1/3 interest in Magdalene Lodes in Pine District; S. V. Newell to Americus Gold Mining Company, 1/6 interest Americus, Ground Hog, Blythe and Fiske Lodes in Gregory District; H. A. Flack to F. N. Pierce, the Yellow Jacket group in Wisconsin District; Gold Coin Mines Company to the California Mining and Milling Company, the California, Hidden Treasure and other lodes in Nevada District.

Gilpin Ore Shipments.—The shipments for March were 306 cars, or 5,661 tons, representing the smelting and crude ores, tailings and concentrates shipped to the smelters, showing a gain of over 20% over March, 1900.

Black Hollow.—A crevice about 2½ ft. wide, carrying lead ore of the value of from $35 to $80 per ton, has been opened. F. B. Mechling, Central City, is in charge.

Freedom.—The last car of smelting ore ran $115 per ton, the mill ore is going from 2½ to 4 oz. gold per cord, the tailings selling for from $18 to $22 per ton. S. Haskin, Central City, is manager.

Patch Mining Company.—Manager McCann has ordered a 1⅛-in. steel cable 3,000 ft. long from A. Leschen & Sons Rope Company, of St. Louis, Mo., to replace the broken one in the California shaft, where the water is now down 1,940 ft.

Pyrenees.—It is reported that an Eastern company is to take hold of this and neighboring properties, which are to be worked under the management of Forbes Rickard, of Central City.

Running Lode.—A splendid strike is reported by Superintendent T. Dunstone in the 500 west level, where the pay streak, over a foot wide, gives test values of 25.9 oz. gold, 894 oz. silver, 15% lead and 20% copper, or a cash value of $1,100 per ton. Sinking is in progress.

Gunnison County.

Dubois Tunnel Mining and Milling Company.—This company, with principal office at Davenport, Ia., owns the Dubois Tunnel, 20 miles south of Gunnison, and about 70 acres of ground. The tunnel is now reported in 1,070 ft., and is expected to cut the Pride of Denver vein at 1,300 ft. A new plant of machinery, consisting of a 50-H. P. boiler, Leyner 4-drill compressor, engine and pumping plant, has been installed. The tunnel is being driven 125 ft. per month by the contractors, Jennings & O'Brien. As soon as the Pride of Denver vein is opened the company will erect a large concentrating plant on the Ceballa River. The company represents Colorado and Iowa men. The officers are W. C. Hayward, president; Thomas Wilkinson, vice-president; S. L. Ely, secretary and treasurer; G. W. Griffey, general manager; W. S. Chenoweth, and the foregoing officers, directors.

Lake County—Leadville.

(From Our Special Correspondent.)

New Placer Work.—The work with churn drills along California Gulch by the International Development Company is likely to result in a revival of placer operations this spring and the work now is watched with interest.

Banker Gold Mining Company.—After hard work extending over several years this New York proposition is looking better and the ore streaks at the 200 and 1,000-ft. levels have furnished a small shipment of 100 tons of ore that will net about $125 per ton at the smelters. Manager Guth is encouraged.

California Gulch Mining Company.—Important prospecting work is being carried ahead in an upraise on a 3-in. streak of iron showing 30 oz. silver and believed to be a feeder to a good iron body.

Cyanide Mill.—This plant, which was reconstructed in California Gulch at a cost of $70,000 a few years ago, but did not work successfully, is being overhauled and a new process will be tried. The work is in charge of Manager Mudd, of the Ibex.

Empire Gulch Mining Company.—This company owns 150 acres of virgin territory in Empire Gulch. At 250 ft. a large cave was broken into; this cave is surrounded by smaller caves, in all showing a distance of 300 ft. The largest cave is 25 by 150 ft. Iron ore and lime show in the bottom and along the sides, some iron bodies being 10 by 7 ft. The stuff averages $7. In one of the smaller caves a pile of loose iron averages 15 oz. silver, 5 oz. gold and 48% excess of iron and manganese. The territory is near the old Long & Derry group and Eastern capital is at the head of the enterprise, which is under the management of Howard Collins.

Leo.—This California Gulch property, lying near the Iron Silver, is to be started up after an idleness of 8 years. The work is to be conducted by its owner, W. S. Copeland, and the shaft now down 600 ft. is to go 200 ft. deeper to tap the Moyer ore shoot.

Maple Street Mining Company.—This new downtown shaft in virgin ground near the Union Smelter plant is down 450 ft. A diamond drill is in place to test the territory.

Midas.—Shipments in March were over 5,000 tons of a fine-grade iron ore.

New Home Mining Company.—The stock of the New Home Mining Company will be issued this week and is to be registered with the International Trust Company, of Denver. At a meeting of the board of directors the following officers were elected: W. A. Polkinghorn, president; W. K. Burchinell, vice-president; J. M. Maxwell, secretary; E. J. McCarty, treasurer; Andrew Dyatt, manager.

Orinoco.—Wm. Vivian, at 230 ft. is drifting on the fissure. About 300 tons a month of 35-oz. silicious silver ore are mined.

Rialto Mining Company.—This important Graham Park proposition has been delayed a few weeks by drowning some of the lower workings, due to the sinkers at the 1,300 ft. becoming disabled. The main pump is at the 1,000-ft. level, where the water can be held.

Sedalia.—The work at the 725-ft. level is satisfactory and the big low-grade ore bodies will become steady shippers this week. Some important new work will start at once.

Teller County—Cripple Creek.

Stratton's Independence.—In a report dated March 8th John Hays Hammond says: "Developments, especially in depth, have been retarded by the lack of air for power drills. This defect has been remedied by the installation of a new 35-drill compressor plant. A vigorous system of development work is being carried on, consisting of sinking the main shaft and winzes. Other development work is being prosecuted in the upper levels upon the old vein system. This class of work has been productive of good results. For the development of the yet unexplored portion of the southern area of your property I have outlined a scheme which consists of: (1) The extension of the drift upon the 7th level for about 300 ft. south, with cross-cuts; (2) a drift upon the Bobtail Vein southward on the 3d level for 300 to 400 ft., from which crosscuts will be run east and west. Since October 1st, 1900, and up to March 1st, 1901, the mine produced 52,371 tons of crude ore, equivalent to 20,171 tons of shiping ore, yielding $994,713 gross and leaving a profit of $500,151. As previously stated, ore to the value of between $500,000 and $600,000 gross has been mined from the flat veins and of about $200,000 gross from the ore-bearing ground elsewhere, opened up since my estimate of ore reserves in November. There still remains, according to my original estimate (which I have no reason to modify) about $2,000,000 gross in the ore reserves. These reserves have been considerably increased. The present total gross value of the ore reserves in the mine is about $2,500,000."

(From Our Special Correspondent.)

Anaconda Gold Mining Company.—Reports from this mine are to the effect that the March record of production will be much greater than that of February. The work is being carried on fast under 2 leases. The ore is treated at the Union Mill at Florence which is under the same management as the Anaconda.

Atlantis Mines Corporation.—This company, owning a bond and lease on the Santa Rita, on Squaw Mountain, is pushing work on this property. Drifting on the 600-ft. level, where it is reported ore of good grade has been encountered. This is distinct from the vein from which the 100-ton monthly shipments are made.

Colorado Springs & Cripple Creek Railroad.—This new railroad into the district is completed. The first train from Colorado Springs arrived on March 24th, and trains will soon be run regularly, and the new road will begin to compete with the other roads for freight and passenger traffic. Just what will be the result is not known, but it will probably make quite a difference in rates. The advent of this road is important to the industrial operations of the Cripple Creek District.

Gold Hill Mining Company.—The stockholders of this company held the annual meeting March 16, about 2/3 of the stock being represented. A measure for an increase of $500,000 in the capitalization was passed, making the capitalization $2,000,000. A. B. Moulder, R. P. Davis, J. W. Wright, J. M. Downing, H. L. Chittenden and Geo. S. Cheesman were elected directors.

Mary Cashen Mining Company.—It is reported that the upper levels are to be leased. The company will then sink the shaft to the 900-ft. level, where they will search for the vein cut on the upper levels.

Moon-Anchor.—A strike of considerable importance is reported on the 800-ft. level and there is a prospect to open up a good ore shoot. This would mean much to Gold Hill. For some time this property has been unable to find ore in quantity in the lower levels. Development will be watched with interest. The company is doing some work and a number of leasers are also at work.

National Gold Mining Company.—The situation on this property does not seem so serious as at first supposed. An obligation of $10,000 against the company has been transferred to W. A. Otis & Company, of Colorado Springs, and there is also about $5,000 more indebtedness. There is no truth, however, that foreclosure proceedings are to be brought and the mine is said to be in better shape than for some time.

Palo Alto Mining Company.—The sale of the Bertha Claim on Raven Hill for $100,000 is reported. J. F. Vaile, J. R. McKinnie, R. P. Davie and others are the buyers. This claim adjoins the well-known Moose. A new company will be incorporated, called the Palo Alto Gold Mining Company, with a capitalization of $150,000; par value, 10c. per share, with 100,000 shares to be retained in the treasury.

Sedan Gold Mining Company.—In the case against the Sunshine Company an order was signed by Judge Bailey allowing each of the companies to work in each other's ground to prove up the apex. In the meantime the royalties are to be paid in to court. S. M. Kellum, who has a lease on both of the properties, can now take out ore.

Zenobia Gold Mining Company.—At the annual meeting on March 21st the following directors were elected: W. S. Stratton, W. A. Ramsay, C. W. Kurie, Wm. Lloyd and George Rodgers. A large per cent. of the stock was represented. Many of the leases which were granted on the Bull Hill property are expiring and it is probable that the work will be carried on by the management.

Vindicator Consolidated Gold Mining Company.—The main shaft is now 1,000 ft. deep and the veins contain as rich ore as above. A drift has also been run into this property from the Lillie on the 1,200-ft. level and an upraise is to connect with Vindicator shaft. The property produced during February ore of the gross value of about $75,000, which yielded a net profit of about $48,000.

CONNECTICUT.

Tolland County.

A find of gold ore assaying $300 per ton is reported on the Sheldon farm near Somers. There is nothing to show, however, that the find is of any more value than those reported recently from western Massachusetts and a couple of years ago from the Adirondacks.

GEORGIA.

Lumpkin County.

Findley Mine.—This mine, which was formerly famous for the rich pockets found in it, was leased some time ago to Mr. J. B. Witt, who has been sinking on the vein, and at a depth of 300 ft. has struck a new pocket, which is evidently very rich, though its extent is uncertain as yet.

IDAHO.

Custer County.

White Knob Copper Company.—The Oregon Short Line Company has, it is stated, closed a contract to build about 96 miles of railroad from a point near Blackfoot to Houston. The district has been known to miners since 1859. This new railroad, however, is expected to bring the entire Lost River Valley into communication with the trunk lines. A syndicate backing the White

Knob property, and developing it for the past 3 years, has, it is said, been active in securing the construction of this road.

Elmore County.

Daisy.—This mine, in Neal District, is expected to start work earlier than usual this spring.

Homestake.—Charles Balbach, of Omaha, Neb., manager of this mine, is about to start work for the season at Neal.

Sawtooth Gold Mining Company.—C. T. Brockman is general manager of this Chicago company operating at Rocky Bar. It is said that the 20-stamp mill, work on which began last year, will be completed this season. The company owns 14 claims, but is doing most work on the Crown Point Bee, which has been developed to the 2d level. Sinking below the 2d was stopped by water, but arrangements have been made for ample pumping facilities. The Crown Point Bee ore is reported free milling. The pay chute in the 1st level is said to be 70 ft. long, with 45 ft. of it pay. At the 2d level, about 70 ft. lower, vertically, the chute is 96 ft., with 75 ft. pay.

Owyhee County.

De Lamar Mining Company.—The February report of Manager D. B. Huntley at De Lamar states that 3,782 tons of ore were treated, yielding 1,356 oz. gold and 4,296 oz. silver. The ore assayed $8.90 per ton in gold and $1.33 in silver. The tailings assayed $1.70 gold and 76c. silver. The general operating expenses for the month were $31,605, and the estimated income $26,605, leaving a profit of $5,000.

Shoshone County.

Blue Grouse Mining Company.—W. F. Zumhoff, manager of this company, recently went to his home in Moscow for a short visit. Work has started on a shaft from the upper tunnel near the face.

Chloride Queen.—Work was resumed recently after the property had been idle nearly a year, the last work being on a drift which has followed the vein in for 700 or 800 ft., showing a little ore nearly all the way, but never in amounts to make it of any value. The property is on Sunset Peak.

Leslie Copper Mining Company.—This company, operating a group of claims carrying galena near Wallace has ordered a 5-drill Leyner air compressor from the factory at Denver, Colo., and will install it on the property near Sohon as soon as it arrives. The shoot is said to be 7 ft. wide, of concentrating ore. There are 4 parallel ledges on the property, the drift being on the most southerly one.

Shamrock.—The cross-cut tunnel is still being run, but will not reach the ledge for a month or so. A shaft about 10 ft. deep has been sunk on the apex of the vein showing it to be 4 ft. wide.

MICHIGAN.

Copper—Houghton County.

Mayflower Mining Company.—At the annual meeting at Boston, the old board of directors—H. F. Fay, Manning Emery, John C. Watson, W. B. Mosman, S. R. Dow and James Chynoweth—was re-elected, 70,895 shares voting. The report of the treasurer showed receipts, including cash on hand January 1st, 1900, of $216,692; expenditures, $58,734; cash, January 1st, 1901, $157,958. During the year 1,674 ft. of shafts, pits and drifts were opened.

(From Our Special Correspondent.)

Calumet & Hecla.—The American Bridge Company, of New York, is rushing the construction of the new 6-head addition to the Hecla stamp mill at Lake Linden, and will complete it in 2 weeks.

About 150 wash boys struck during the week and threatened to prevent the mills from running if their demands were not granted. They returned to work with 2 demands granted and 1 under advisement.

Copper—Keweenaw County.

(From Our Special Correspondent.)

Clark.—Operations at this old manganese mine are suspended and the machinery is for sale. The mine was opened up for copper in 1858 by the French Mining Company, and passed through various hands. Last year, after 15 years' idleness, work was resumed under S. W. Osgood, Jr., The old workings were unwatered and about 75 men employed. It was hoped to have several cargoes of ore ready for shipment to a Pittsburg smelter this summer. The vein, when encountered, was 6 ft. wide, but dwindled to nothing.

Copper—Ontonagon County.

(From Our Special Correspondent.)

Adventure.—Fraser & Chalmers, of Chicago, have secured a contract from this company for 2 double-cone hoisting engines to carry 6-ton loads each. The cross-cut from No. 4 shaft will reach the Butler lode in a few days.

Mass Consolidated.—A 20-ton mass of copper has been found at the 6th level in the Ridge shaft. The new shaft and rock house will be completed in a few days. It is 48 by 65 ft. and is equipped with 1 steam hammer, 2 rock crushers and a Nordberg Corliss engine with 12 by 24-in. cylinders.

Iron—Menominee Range.

Aragon.—This mine at Norway has been sold by Oglebay, Norton & Company, of Cleveland, to the United States Steel Corporation and the latter will soon take possession. The deal has been pending several weeks. The consideration is not given, but is known to be large.

MISSOURI.

Jasper County.

(From Our Special Correspondent.)

Joplin Ore Market.—The price for the best grades of zinc ore advanced 50c. last week, but there was no advance on choice and medium. The best price paid was $27.50 per ton for the fine ore from the King Jack Mine, on the ground of the United Zinc Company at Joplin. The ore from the Trouble Mining Company and the Jack Harvard Mining Company on the Continental Zinc Company's ground at Joplin, brought $27 per ton, and the balance of the district ore sold according to grade down to $14 per ton for the silicate at Aurora and other camps. Lead declined 25c. per 1,000 lbs., selling all the week at even $23 per 1,000. Following is the turn-in by camps of the Joplin District for the week ending March 30th:

	Zinc lbs.	Lead lbs.	Value.
Joplin	2,963,160	510,670	$50,267
Galena-Empire	1,133,520	151,210	17,100
Carterville	1,653,200	263,940	24,256
Webb City	772,940	68,850	10,086
Aurora	1,125,290	20,610	11,726
Oronogo	438,180	27,550	5,904
Zincite	488,130	8,400	6,539
Neck City	92,140	.....	1,196
Granby	262,000	42,000	2,950
Cave Springs	149,820	14,610	2,134
Spurgeon	179,250	38,120	2,671
Central City	95,640	10,300	1,385
Spring City	40,850	27,130	1,074
Duenweg	.....	76,490	1,763
Peacock City	54,800	7,810	867
Carl Junction	42,360	.....	551
Carthage	41,720	.....	522
Total	9,533,030	1,267,690	$140,991
Total 13 weeks	125,908,750	16,625,780	$1,871,397

Zinc value for week, $11,802; lead value, $29,189; zinc value 13 weeks, $1,492,898; lead value, $378,499.

During the corresponding week last year the best grade of zinc ore sold for $33 per ton and lead at $27.25 per 1,000 lbs. The lead sales were less than last week by 164.280 lbs., the zinc sales greater by 4,657,920 lbs., and the value greater by $62,487. For the first 13 weeks last year the lead sales were less than this year by 3,083,890 lbs., the zinc sales greater by 4,003,700 lbs., and the value greater by $368,913.

Compared with the previous week, the lead sales were greater by 44,890 lbs., the zinc sales less by 1,166,120 lbs., and the value less by $20,629.

A test mining suit has been filed in the district court at Galena, Kan., by the Eureka Mining Company against Constable Schmidt, to recover possession of their mills, levied upon by him on accounts aggregating only $200. The mills attached are worth $20,000, and 30 men are thrown out of employment by the closing. It is the purpose of the attorneys of the Eureka Company to secure a decision that a mill built on leased ground is a part of the realty and can not be levied on as personal property.

Ore Exports.—Six mines in the district producing high-grade zinc ore are sacking a shipment of 500 tons, which will be shipped from New Orleans to J. Needham's Sons, of Antwerp, on April 15th. The mines are the Katy C. and Tom S., at Prosperity, and the Big Kate, Rubber Neck, Cole & Ingersoll and the Sphynx at Neck City. The Memphis road will handle the shipment.

Imperial Zinc Smelting, Refining and Manufacturing Company.—G. Whalen Beach, Dyke V. Keedy and J. H. Froelich, all of Boston, Mass., have made a proposition to build, equip and operate a plant to cost $225,000, and employ about 200 men, making rolled zinc, zinc shingles, electrical shapes and other manufactured forms of zinc, if the citizens of Joplin will donate them a site and build railroad spurs and switches at an additional cost of $10,000. They also propose to build storage bins for ore, issue warehouse certificates, and offer to furnish a bond equal to the value of the site and the cost of the switches and spurs. The proposition has been accepted conditionally. A deposit of government bonds will be demanded in place of the bond of an individual or of a guaranty company.

International Zinc Company.—Under a contract with Herbert B. Shoemaker, of the stockholders' reorganization committee of New York, Judge Waltour M. Robinson, of the Supreme Court of Missouri, one of the holders of the mortgage on the Free Coinage fee of 110 acres, of the International Zinc Company's property, bid the property in March 30th at the trustees' sale for $30,040, which covers costs and accrued interest. Judge Robinson, J. C. Stewart, of Webb City, and Stickney Brothers, of Carthage, the owners, will make to the reorganization committee, or a person designated, a warranty deed on the payment of $6,000. The holders of the warranty deed will make a trust deed back to Robinson for $24,040, to secure a clear title. The company will be reorganized with a capital of from $100,000 to $150,000, and it is said stock in the new company will be issued to old shareholders proportionate to the ratio between the capitalization of the old company and the new.

Myrtle J.—This famous mine, on the ground of the Boston-Aurora Zinc Company, at Aurora, has been sold to Frank Nicholson, of New York, who passed on all the Colley properties during 1898 and 1899. The lease on which the mine is located is the only one ever made by the Boston-Aurora Company, as it works the balance of its tract, The purchase price is said to be $35,000.

MINNESOTA.

(From Our Special Correspondent.)

There has been a heavy fall of snow and shipping has been necessarily delayed. The Minnesota Iron Company mines that were to ship this week will not for some days, and it is probable that the movement of ore to lake ports will not start until April 10th.

Iron—Mesabi Range.

(From Our Special Correspondent.)

The open pit mines are overhauling shovels, locomotives, etc. The underground mines have somewhat larger stockpiles than a year ago. The indications are that shipments will materially exceed those of any preceding year.

Buckeye Mining Company.—Drill work has begun for the Iron Mountain men that have the property bonded.

Drills have been started in section 6, close to Hibbing, where Capt. McGregor worked last, to open the Dessau, but found only low-grade ore. This is about the only place around Hibbing where ore has not been found.

Pettit Mining Company.—This mine is being developed rapidly and will be a shipper during the present year.

Union Ore Company.—There are nearly 50,000 tons in stock for this new property whose development practically began last fall. There are 100,000 tons of stock at this and the Franklin, and the Union will be the chief shipper this year. There is a considerable stock left over at the Victoria.

Iron—Vermillion Range.

(From Our Special Correspondent.)

A decision in the Section 30 case has just been made, in favor of A. M. Miller and the Germania Iron Company and against the Minnesota Iron Company. It is a reversal of the former decision by the lower court and is by the United States Circuit Court of Appeals. The land is the northwest of the southeast 40 acres, known as the Craig or James tract. The question was as to whether or not a decision of the Secretary of the Interior became effective as soon as made or when promulgated by the local land office. The court of appeals decides for the latter contention. This throws out Craig and James, who had sold to the Minnesota Iron Company. There is an appeal to the United States Supreme Court which will be taken. Already the consolidated cases of Miller against F. W. Eaton, the original holder, have reached the supreme court, and the end of this long litigation is in sight.

There are larger stockpiles on the various Vermillion mines of the Carnegie Company than last year, while the Minnesota stocks are normal and the Chandler slightly under some springs.

MONTANA.

Beaverhead County.

The dredges at and near Bannack are said to be preparing for an early season. There has been less ice than usual in Grasshopper Creek. Repair work is being done to all the boats. The wood haulers have been considerably hampered for the past few weeks on account of the mild weather and bad roads.

Broadwater County.

Stockton Copper Mining Company.—This company, operating near Radersburg, has purchased the North Star group, owned formerly by John Rothfus, who has been placed in charge. The group comprises 3 full claims, with about 3,000 ft. of openings, and the mines have yielded, it is stated, a total of 140,000 tons of ore. At the annual meeting of the stockholders the following officers and directors were chosen: President, E. W. Harney, Butte; vice-president, Henry Albertson, Butte; secretary and treasurer, Philip A. Gamer, Butte; directors, Alex. Walker and J. Armitage, Butte.

Stolen Sweets.—The sale of this mine at Winston was completed recently by George Gunn, who is said to have interested Barton Sewell, general manager of the American Smelting and Refining Company. President T. C. Power, of the American National Bank, of Helena, is also interested. The mine adjoins the Iron Age, which vein ranges from 12 to 18 in. wide, with high-grade gold and silver ore. The average in the lower levels is said to be from $62 to $65 per ton. It is developed to the 400-ft. level. This property belongs to Cannon Brothers, of Wins-

ton, and has been under bond to Fahlgren Brothers and Gillis. The force at the mine is to be increased and the ore to be taken out more rapidly.

Jefferson County.

Bullion.—It is rumored that M. L. Hewett has secured a bond on this mine in the Cataract District from the Fisher Brothers. The bond is for 18 months. The Bullion is near the Ada, which at present is under bond to Springfield, Mass., parties. The Bullion has been shipping ore for 6 months and is said to have from 2 to 9 ft. of solid sulphide ore running from $20 to $35 a ton in copper, gold, silver and lead.

Copper Belle.—Chicago parties have secured a lease and bond on this and the Black Bear mines in the Cataract District.

Elkhorn.—J. Henry Longmaid has let a contract for repairing the mill buildings and work has started repairing the buildings and setting the machinery. The mine shut down because the English company working throught that it was worked out. A careful sample of the dumps and of the mine above the water level is said to show a large quantity of ore which can be worked at a profit. The mill will be equipped with the best machinery, which was ordered some months ago and has been shipped.

Eva May.—The concentrator has started and concentrates are being loaded for shipment to Butte.

Silver Bow County.

Butte & Boston.—At the annual meeting in New York City Adolph Lewisohn and Jas. Philips, Jr., were re-elected directors to serve for 3 years, there being no opposition.

Comanche.—Judge Clancy has granted a temporary injunction in the Comanche case which it is said will keep the property closed until the Wetzstein case can be tried on its merits, and this cannot be done within a year. The order was made after a hearing of the case. Evidence was introduced to show that from May to December, 1900, the Boston & Montana Company, according to its own figures, took $1,796,126 out of the Comanche, and that the mine was producing at that rate when it was closed by the Wetzstein injunction, 15,000 to 20,000 tons of ore per month, running about $15 a ton, were taken out.

Emma.—The Butte Mining and Development Company has purchased 2 additional 80-H. P. boilers. A hoist has also been purchased.

Farrell Copper Company.—This company is equipping its property at Butte with a complete surface plant. Two new boilers and a new hoisting engine have been put in, a new shaft house and gallows frame have been erected and sinking has started. It is the intention to sink the shaft 500 ft. before cross-cutting is done. Later a steel gallows frame and other improvements may be installed.

Leonard.—An injunction, issued by Judge Clancy in the Heinze litigation, compelled the Boston & Montana to suspend work on this mine. It is said about 300 men were laid off. Heinze claims that the veins upon which the Boston & Montana has been mining, in the Leonard, Gambetta and Piccolo, belong to the Minnie Healy, in which he owns an interest.

Minnie Healey.—In the suit of F. Augustus Heinze and the Johnstown Mining Company against Carl Kleinschmidt, as administrator of the estate of John D. Allport, together with several other defendants, an action involving the Minnie Healey Mine, Carl Kleinschmidt has petitioned the district court for the appointment of a receiver to take charge of the Minnie Healey and operate and develop it.

Montana Ore Purchasing Company vs. Boston & Montana.—The transcript in this mining contest, just filed in the Supreme Court of Montana, consists of 6,800 pages, bound in 10 volumes. It took the printer more than 4 months to complete this job, and the 15 copies he printed cost $4,400. The contest is for title to a vein of copper ore which the latter company has been mining in the Pennsylvania claim at Butte, and is only one of several similar contests in which they are engaged. Before the case had reached the Supreme Court, bills of costs had been filed aggregating $324,134. The larger part of these costs consisted of expert witnesses' fees, which the court disallowed, but, even as re-taxed, the bill of costs, including expenses for preparing the case for trial, reached the total of $265,015.

Nipper.—A deed was recently filed with the County Recorder, by the terms of which F. Augustus Heinze transfers to Chester A. Glass, of Spokane, a 1/100 interest in this mine for $50,000.

Plymouth.—The Supreme Court has confirmed the decision of the District Court granting interlocutory injunction to James Maloney, C. P. Drennen and P. Mullins, co-owners of this mine at Butte, preventing Silas King and Wakeman Sutton, owners of the Silver King Mine, from taking ore from the Plymouth, which adjoins the Silver King on the south. The estate of the late Marcus Daly is a co-defendant.

Smokehouse.—Operations have been delayed considerably, owing to the contractors who have the order for putting in additional machinery. It has been found necessary to put in a steam plant for pumping. The boiler is of 50 H. P. capacity and will be used only to supply steam to operate the station pump at the 400-ft. level. The sinker from there down will be operated by air, the compressor power being electricity as now in use.

NEW YORK.

A dispatch from Rochester, April 3d, says: "Plans have been perfected by which, before business opens up this spring, all the stone quarries in Western New York producing the famous Medina block paving stones are to be formed into a trust with a capital of $1,500,000. John J. Ryan, an attorney of Medina, and Michael Slack, owner of one of the largest quarries in the State, are the prime movers in the new concern; while Mr. Chapman, of the firm of Moore & Schley, New York bankers, and E. R. Johnes, of New York, are also interested. There are 15 quarries in the western part of Monroe County about 40 in Orleans and several in other counties, making a total of about 75. Mr. Ryan has secured options on substantially all the quarries of Orleans County. The new concern will control the output of the Medina block pavement, at present in use in nearly every city in the East. It is understood that one of the chief reasons for the consolidation is that last year the quarrymen formed a labor organization and now are making unreasonable demands on the owners."

PENNSYLVANIA.

Anthracite Coal.

Owing to the fall in demand for coal the mining companies have begun running on 2/3 time.

Lehigh Valley Coal Company.—This company's statement for February and the three months of the fiscal year from December 1st to February 28th is as follows:

	February.	Three months.
Earnings	$1,756,863	$5,697,327
Expenses	1,746,510	5,737,614
Net or deficit	N. $10,353	D. $40,287

For the three months there was an increase of $1,003,492 in gross earnings; an increase of $915,554 in expenses; and a decrease of $87,938 in the deficit.

Oneida.—The 600 men employed at this Hazleton colliery of Coxe Brothers & Company have been locked out. The company wanted the miners to report earlier for work, but the men refused to do so. No move has been made for a settlement.

Bituminous Coal.

Miners' Wages.—The new mine scale in the Pittsburg District has gone into effect. All fears of a strike in the Irwin District for the enforcement of the Pittsburg scale were dissipated by the action of the men themselves. They adopted resolutions accepting the operators' 65c. scale and agreeing to return to work.

Pittsburg men, headed by Harvey Verner, have closed deals for 900 acres of coal-lands in Cecil Township, the consideration being $85,000. Operations are to begin at once, and the company will give employment to 200 miners. The lands lie near Greer Station, on the Chartiers Valley branch of the Pittsburg, Cincinnati, Chicago & St. Louis Railroad.

Berwind-White Coal Mining Company.—This company is beginning work at its Ocean Slope No. 2 at Herminie, where 8 years ago it opened a new field with its Ocean Slope No. 1. The company is said to have spent $300,000 in preparing to open the slope for operation. About 1,000 men will be employed at the 2 mines, and the daily output, it is said, will be 200 cars of coal.

Ursina Coal Company.—John Murray Mitchell, of New York City, has formed a consolidation of several small coal properties in Somerset County under this name. It has a capital stock of $1,500,000. The incorporation papers were taken out in New Jersey. Among the properties consolidated are the North Fork Railway Company and the Ursina Coal and Coke Company. About 7,000 acres of coal lands are acquired.

(From Our Special Correspondent.)

W. T. Rainey, a son of the late W. J. Rainey, and C. R. Elliott have formed a new concern, known as the Pennsylvania Coal and Iron Company, which will take the business of W. T. Rainey as soon as certain matters for which the old firm is responsible have been disposed of. The idea of the new company is to utilize surplus coke in the manufacture of pig iron.

SOUTH DAKOTA.

Lawrence County.

(From Our Special Correspondent.)

Gold Output.—It is estimated that the output of gold from the Black Hills will be at least $2,000,000 larger this year than last, judging by the output for the quarter just ended.

Alpha Mining Company.—This company has been organized to develop a group of claims west of Lead. The company is capitalized at 1,500,000 shares, par value $1. The incorporators are Thomas H. Moore, James A. Collins, Newton M. Wade, Steven J. Zerega, T. E. Gesky, J. B. Moore and James Cusick, all of Lead. The company will begin development soon.

Colorado-Deadwood Company.—It is said that at the annual election, May 1st, a reorganization will be effected. The president of the company now is C. E. Giddings, Deadwood. The company owns 250 acres of ground in the Ragged Top District.

Golden Reward Company.—Plans are completed for a 200-ton cyanide plant to be built this spring on the site of the old chlorination works in Deadwood. The diamond drill hole that this company is sinking in the slates in the Bald Mountain District is down over 600 ft. on a ledge of free-milling ore. The company has found a new shoot of silicious ore in an upper quartzite contact, in the Fanny Mine.

Iron Hill.—This silver claim is being worked under lease to W. A. Remer, of Deadwood.

Titanic Company.—Work in the Titanic shaft will start April 1st. A steam hoist plant has been installed and a sinking pump put in. It is expected that extension of the shoots found in the district farther south will be encountered.

TEXAS.

Brewster County.

Marfa & Mariposa Company.—This company in Terlingua District cleaned up for the week ending March 23 122 flasks of quicksilver, making for the month 302 flasks as the output from a 10-ton furnace.

Jefferson County.

Two more large wells are completed. The gusher of the Southwestern Oil Company, ½ mile northeast of Guffey & Company's gusher, is shut in and will not be opened for some time. Several wells are nearly down to the oil sand. J. M. Guffey & Company have completed a 28,000-bbl. tank and will put up another of the same capacity. The pumping station has nearly reached completion and is composed of a battery of 8 boilers and a pumping capacity of 24,000 bbls. a day. The company is building 2 tanks each of 52,000 bbls. capacity at the station and is putting up 6 more of the same size at Ewesta, 7 miles southeast of the station, to be used for storage purposes and from which they will load vessels at Port Arthur. The Port Arthur end of the line from Ewesta has not been completed. The oil has been found very satisfactory fuel for running the pipe cutting machines and for filling the tank cars. Work has been very much delayed on account of inability of the railroads to deliver material and supplies promptly. Several contractors are preparing to drill with the regulation tools and cable.

UTAH.

San Pedro, Los Angeles & Salt Lake Railroad.—Articles of incorporation of this company have been filed at Salt Lake. The incorporators are: William A. Clark, Butte, Mont.; R. C. Kerens, St. Louis, Mo.; J. Ross Clark, Los Angeles, Cal.; W. S. McCornick, David Keith, Thomas Kearns, Charles O. Whittemore, all of Salt Lake City, Utah; Reed Smoot, Provo, Utah; E. W. Clark, Ophir, Utah; Charles Clark, Central Township, Mo.; S. A. Bemis, St. Louis, Mo.; Perry S. Heath, Muncie, Ind.; Richard Kerens, Jr., St. Louis, Mo.; Charles W. Clark, Butte, George B. Leighton, St. Louis, Mo.; T. E. Gibbon, Los Angeles, Cal.; William B. Clark, Kansas City, Mo.; A. H. Handian, St. Louis, Mo.

The purpose of the company is to build, lease and purchase a railway extending from Salt Lake City to a terminal point at East San Pedro, in Los Angeles County, Cal. The line is to pass through the counties of Salt Lake, Utah, Tooele, Juab, Millard, Beaver and Iron, in Utah; Lincoln County in Nevada, and the counties of San Bernardino, Riverside, Orange and Los Angeles in California. Provision is made for a branch from an appropriate point on the main line to a place in the Deep Creek Valley named Ibapah, in Tooele County, and the other from a point on the main line to Cedar City, in Iron County.

The length of the road is estimated as 1,100 miles, and the approximate cost $25,000,000. Salt Lake is named as the general place of business. W. A. Clark holds 12,500 shares of the capital stock, valued at $1,250,000, in property, and R. C. Kerens has a like amount. The remaining incorporators hold one share each. The property to be bought is the Los Angeles Terminal Road. The capital stock of the corporation is $25,000,000.

The officers are named as follows: William A. Clark, president and director; R. C. Kerens, first vice-president and director; J. Ross Clark, second vice-president and director; T. E. Gibbon, third vice-president and director; T. F. Miller, secretary and director; F. K. Rule, treasurer; W. S. McCornick, director; George B. Leighton, director; Thomas Kearns, director; Reed Smoot, director; E. W. Clark, director; Charles W. Clark, director; Perry S. Heath, director.

According to a Salt Lake paper, surveying parties are to be in the field soon.

(From Our Special Correspondent.)

Ore and Bullion Shipments.—During the week ending March 30th there were sent forward from the several smelteries of the State 102 cars, or 4,234,843 lbs., of ore and bullion. Of this 77 cars, or 3,100,770 lbs., was silver-lead ores; 20 cars, or 862,326 lbs., silver-lead bullion, and 5 cars, or 271,747 lbs., copper bullion. This shows an increase over previous week of 17 cars, or 638,224 lbs.

Juab County.

(From Our Special Correspondent.)

Tintic Shipments.—For the week ending March 30th there was shipped from the three rail points of this district 118 cars of ore; two cars of concentrates and one bar of bullion from the Mammoth Mill. The several contributors of ore were as follows: Centennial-Eureka, 27; Bullion-Beck, 5; Gemini, 4; May Day, 2; Mammoth, 13; Carissa, 14; Grand Central, 19; Tesora, 4; Swansea, 10; Godiva, 4; South Swansea, 10; Lower Mammoth, 1; Uncle Sam & Humbug, 5.

During the month of March, despite bad weather and roads, 479 cars of ore, containing 12,464 tons of ore; 12 cars of concentrates and 8 bars of bullion, were sent out from this district.

Piute County.

(From Our Special Correspondent.)

Gold Mountain District.—Manager Filer, of the Annie Laurie Company, recently visited Salt Lake with a 320-lb. consignment of cyanides from the new mill, representing something over $12,000, the result of a 9-days' run.

Salt Lake County.

Butterfield Mining Company.—This company recently added 5 stamps to its mill at Bingham and 10 stamps are now dropping on an average of nearly 60 tons of good ore daily. John Brooks is in charge of the new plant and P. Keel is manager.

Summit County.

(From Our Special Correspondent.)

Park City Shipments.—For the week ending March 30th there was marketed through the Mackintosh Sampler 2,440,880 lbs. of ores and concentrates, which represents the output of the camp. The several contributors were as follows: Silver King, crude ore 716,930 lbs.; concentrates 271,720 lbs. Daly-West, crude ore 833,430 lbs.; concentrates, 409,320 lbs. Anchor, concentrates 209,480 lbs.

WASHINGTON.

Ferry County—Republic.

(From Our Special Correspondent.)

Ben Hur.—Stoping continues on the 230-ft. level and 100 tons of ore are ready for shipment to the Republic Mill.

Bodie Gold Mining Company.—The Bodie claim is about to pass into the hands of Canadian and Spokane, Wash., men.

Republic Power and Cyaniding Company.—The foundations of the Griffin Mills are being strengthened. Two mills are running satisfactorily. The company is building a bridge 100 ft. high across Granite Creek for the convenient delivery of custom ore.

Republic & Kettle River Railway.—Steps have been taken toward acquiring the right to build the road.

WEST VIRGINIA.

Mineral County.

(From Our Special Correspondent.)

Two new railroad companies have been chartered in West Virginia. They are the Southwest Virginia Railroad Company, which will build a line across from Tug River to Coal River, in the southeastern part of the State. The other is the Potomac & Pocahontas Railroad, to run from Keyser, Mineral County, to Franklin, Pendleton County.

COAL TRADE REVIEW.

New York. April 5.

Anthracite.

With fears of a strike dispelled and warm weather not far distant, the anthracite coal trade shows a natural decline in buying, though business is reported to be fully up to the average for this season of the year. Trade will improve with the opening of lake navigation. Supplies on the docks at the head of Lake Superior have vanished; never in recent years have the docks been swept so clean. The ice on the lakes is thick, however, and navigation is not expected to open before May 1st. At Chicago trade has been quiet. All-rail coal enough is to be had to supply all needs. Along the lower lakes buying fell off with the news of no strike this spring. Trade at seaboard points is fair. Retail buying has been stimulated by raw, windy weather.

There has been more than the usual amount of Wall Street talk about anthracite roads this week. It has been asserted that the Lehigh Valley was to be added to the Reading and that the Vanderbilts were to take over Delaware & Hudson. Doubtless Mr. J. P. Morgan has not been averse to any talk that would keep up a bull market, but as a matter of fact, Mr. Morgan has had a large interest in Lehigh Valley two years and there is nothing to show that he intends to unite the property with Reading. The Vanderbilts hold some Delaware & Hudson stock and the road has connections with the New York Central, but there is nothing to show that Vanderbilt interests in the road are any larger than they have been. On a bull market almost any kind of bull talk seems to go.

The roads have announced their spring prices. The announcement is a novel one in that it continues the winter schedule, but offers a discount of 50c. per ton for all coal bought in April, 40c. for that bought in May, 30c. for June, 20c. for July and 10c. for August, with the full winter schedule again on September 1st. This scheme of a single price with special graded discounts has never been tried before, at least not on just the present plan. It seems eminently fair and honest, for the man who buys in April or May has a substantial discount offered him, and the present close control of the various roads is assurance that July prices will not be lower than April prices, as has too often been the case. Consumers may not take full advantage of the discounts this year, waiting to see how prices will be maintained. If upheld, however, the new plan should do much to distribute buying over the year more evenly than has been the case, thus ensuring steadier business for the companies and more regular employment for the men in the mines.

Owing to the fall in demand most of the collieries are now working 2/3 time.

The April prices for free-burning white ash coal f. o. b. New York Harbor ports are: Broken, $3.50; egg, $3.75; stove and nut, $4.

Bituminous.

The Atlantic seaboard soft coal trade is still dull. One reason given for the dullness is that many consumers, fearing labor troubles at the collieries, laid in liberal supplies in March and now, with all danger of a strike over, they have coal enough for some weeks. Another reason is that many plants using both water power and steam have now all the water needed and are not buying coal. However, it is thought that there will be more life to the market in a couple of weeks and shipments will be heavier.

Quite a number of contracts for this year have been taken, though consumers are still inclined to hold off. It is stated that they can buy single cargoes as needed for the same prices they would have to pay on season contracts, hence they have no reason for contracting. The first squeeze, however, will send them contract hunting. There is the usual talk of cut prices, but when the talk is sifted some reason can usually be found which covers the case; for instance, a lower grade coal may be offered at a price below that permitted on standard grades.

Trade in the far East is dull. Some first orders on new contracts are coming in, also some shoal water port business that has been stopped by ice. Along the Sound trade is quiet also; a comparatively small amount is going forward to fill up holes in stocks. New York Harbor trade is taking a fair tonnage. All-rail trade is a little better.

Transportation from mines to tide is irregular and not quite up to schedule. Car supply is enough for all demands. In the coastwise vessel market, vessels are scarce; orders are scarce also. We quote current rates from Philadelphia as follows: Providence, New Bedford and the Sound, 65c.; Boston, Salem and Portland, 70c.; Wareham, 70c.; Lynn, 80c.; Newburyport, 85c.; Portsmouth, 75c. Rates from the further lower ports are 10c. higher.

Birmingham, Ala. Apr. 1.

(From Our Special Correspondent.)

There is evidence that the demand for coal is not going to be as brisk as it was a few weeks since, but the operators do not favor a reduction of prices and will try to run mines a little slack. State Mine Inspector J. deB. Hooper says that his annual report for the year 1900 will show a production a little less than 8,250,000 tons. He already predicts an increase of nearly 2,000,000 tons for this year, provided, of course, that the work that is now being done continues. The miners' scale convention will be called for the middle of June and will demand a different contract. It may try to fix a higher minimum for coal mining and approve a plan to have a stationary price the year around. There are no doubts that the operators will resist any effort to make a higher minimum price than now exists and that point may cause trouble. The miners have divided their organization already in this State, forming a sub-district with the miners of Walker, Winston and Marion counties. The coal mined in the counties named is not used for furnaces and the miners object to having their wages fixed on the selling price of pig iron.

Cleveland, O. Apr. 3.

(From Our Special Correspondent.)

The meeting of the operators of the Ohio, West Virginia and Pittsburg districts, held in this city the latter part of last week, resulted in a reduction in the price on all coal. The largest reduction was given to the vessel owners on fuel coal. This price was fixed at $2.50 per ton. The other prices are not given out, but the understanding is that they are generally 15c. less than the prices which obtained a year ago. The sales agents have been sent to the Northwest now to make season contracts and the season's business will be opened soon. The docks in the Northwest have been pretty well cleaned up during the winter, so that a heavy movement this summer may be expected. How soon the season will be opened depends entirely upon the attitude of the vessel men toward the marine engineers, who are now out on a strike, but it does not seem now that much attention will be paid to them.

Domestic sales have continued heavy this week at old prices. The principal item of interest has been the struggle of railroads to afford sufficient cars for the movement. A serious shortage still prevails and it is not likely that any relief will be seen soon, especially since the movement of ore is increasing, thus making an additional demand for equipment. The prices hold firm as follows: Slack, $1.20; nut, $1.50; run-of-mine, $1.16; three-quarters, $1.80; lump, $2; Massillon, $2.60.

Pittsburg. Apr. 3.

(From Our Special Correspondent.)

Coal.—It is estimated that close to 40,000,000 bus. of coal were sent to the Southern markets during March by the Monongahela River Consolidated Coal and Coke Company. This was the greatest shipment in the history of the Monongahela River coal trade. There is also an unusual supply of empty craft in the pools and harbor. The coal miners of the Pittsburg District on Monday celebrated the fourth anniversary of the eight-hour work day and all the mines were idle. The new mining scale went into effect yesterday and so far as is now known is satisfactory. No strikes have been reported and all the mines are in operation. The district convention which closed last Saturday unanimously indorsed the terms of settlement made by their scale committee at the three weeks' conference with the representatives of the two coal combinations. The operators in the Irwin Field who ship exclusively to the Eastern market have refused to pay Pittsburg mining rates and have offered to continue the present scale for another year. The men accepted the terms and all are at work. The district executive board of the United Mine Workers is meeting this week formulating plans for strengthening the organization in the Irwin District with a view to enforcing the Pittsburg scale of prices, which is 6c. a ton higher than the rates now in force.

Connellsville Coke.—There was an increase in the production last week, but the shipments show a slight decrease. Prices of standard Connellsville coke are firm at $2 for furnace and $2.50 for foundry. Outside coke is higher this week, furnace coke having advanced from $1.50 to $1.75@$1.85. Of the 21,447 ovens in the region 19,675 are active and 1,772 are idle. The production last week was 231,233 tons, a gain over the previous week of 1,556 tons. The shipments aggregated 10,900 cars, distributed as follows: To Pittsburg and river tipples, 3,403 cars; to points west of Pittsburg, 5,181 cars; to points east of Connellsville, 2,316 cars. This was a decrease of 323 cars.

Pennsylvania Railroad Coal Traffic.—This company reports the coal and coke traffic originating on all its lines east of Pittsburg and Erie as below, for the three months ending March 30th. The figures are in short tons:

	1900.	1901.	Changes.
Anthracite coal	960,109	1,171,011	I. 210,902
Bituminous coal	4,977,696	5,318,917	I. 341,221
Coke	2,299,543	1,925,768	D. 373,775
Totals	8,237,348	8,415,696	I. 178,348

The chief point to be noted in this statement is the large decrease in coke shipments, amounting to 16.2%, while there was a considerable increase in coal.

Shanghai, China. Feb. 18.

(Special Report of Wheelock & Co.)

Coal.—No important transactions in Japan coal are reported. Freight rates from Moji have suffered a severe decline. A fair quantity of Cardiff coal changed hands. There is absolutely nothing doing in Sydney Wollongong. Arrivals of all kinds of coal during the fortnight were 21,072 tons. Quotations, per ton, are as follows: Welsh Cardiff, 22 taels ($14.75); Australian Wollongong, nominal, cargo, ex-godown, 12 taels ($8.04), and miscellaneous sorts, 6@7 taels ($4.02 @$4.69); Chinese, Kaiping, lump, 8@10 taels ($5.36 @$6.70); dust, 6 taels ($4.02), and mixed, 7@7.50 taels ($4.69@$5.03); Japan, all contracted for.

Kerosene Oil.—Owing to the great fire at Batum, where, as telegraphic advices stated, 300,000 tons were still burning, our market took a sharp rise and natives were able to realize good profits on their late purchases, prices advancing to 1.93½ taels from first hands and resales at 1.89½. The market closes quiet.

Stocks are 312,500 cases Devoes, 445,950 cases Russian; total, 758,450 cases. Quotations per case are as follows: American Devoes, 1.93½ taels ($1.30); Russian Anchor Chop, 1.87½ taels ($1.26); Ram Chop, 1.85 taels ($1.24); bulk oil (2 tins), 1.83 taels ($1.23), and loose, 1.45 taels (97c.). No quotations for Sumatra Langkat.

Foreign Coal Markets.

The export market is very quiet and no new contracts are reported. Shipments to France and Italy are on old orders. South American business is a little more promising.

Charters for European ports are less frequent, owing to the lull in the export trade. More is being done with the Central and South American countries. Of these charters one was taken this week at 15s. ($3.60) from Norfolk, Va., to Buenos Aires, Argentine Republic.

Messrs. Hull, Blyth & Co., of London and Cardiff, report under date of March 23d as follows: A disposition to stand out for better prices, in view of the coming Easter holidays, and in the hope that tonnage may come in more plentifully before then, has characterized the Cardiff market. Newport coals rule easier. Quotations are: Best Welsh steam, $4.08@$4.20; seconds, $3.96; thirds, $3.72; dry coals, $3.60@$3.72; best Monmouthshire, $3.60@$3.72; seconds, $3.24@$3.48; best small steam coal, $1.56@$1.68; seconds, $1.44@$1.50; other sorts, $1.20.

These prices for Cardiff coals are f. o. b. Cardiff, Penarth or Barry, while those for Monmouthshire coal are f. o. b. Newport, exclusive of wharfage, and are for cash in 30 days, less 2½% discount.

Tonnage continues scarce and rates firm. Some charters noted are: Marseilles, $2.05; Naples, $1.98; Genoa, $1.98; Singapore, $3.84; St. Vincent, $1.74; Buenos Aires, $3.36; Rio Janeiro, $3.72.

CHEMICALS AND MINERALS.

(For further prices of chemicals, minerals and rare elements, see page 454.)

New York. Apr. 5.

The imports and exports of chemicals, etc., at all United States ports in February, 1901, and the two months of this year, were as below:

Articles.	Feb., 1901.		Year, 1901.	
	Imports.	Exports.	Imports.	Exports.
Bleaching Powder, lbs.	9,398,831	.....	20,173,708	.....
Caustic Soda, lbs	23,369	75,403	1,274,063	188,968
Sal Soda, lbs	330,980	.....	876,186	.....
Soda Ash, lbs	2,441,302	4,313	14,811,271	4,313
Chlorate of Potash, lbs	85,598	2 240	169,971	6,160
Copper Sulphate, lbs	.....	7,788,259	.....	12,046,780
Nitrate of Soda, tons	19,704	.....	27,540	300
Muriate of Potash, lbs	1,217,587	.....	12,516,152	.....
Phosphate Rock, tons	1,936	55,305	17,191	99,318
Pyrites, "	24,378	.....	49,938	.....
Brimstone "	2,775	.....	16,090	4
Saltpeter, lbs	683 624	.....	2,472,438	.....

As compared with the previous month February imports show a marked falling off in soda ash, muriate of potash and saltpeter, and a large increase in nitrate of soda. Exports of copper sulphate were much larger than January.

Heavy Chemicals.—Contract deliveries are good, and prices generally firm, although the increased arrivals of bleaching powder, brought prime makes down to $1.62½@$1.75 per 100 lbs. Domestic alkali works are keeping production well in hand so as to maintain prices by lessening the opportunity of second hands from cutting the f. o. b. quotations too closely on prompt deliveries. On the other hand, it may be said that makers of soda ash are getting practically the same prices as a year ago. The chlorate of potash works are realizing somewhat less than last year, and the same may be said of sal soda, owing to keen competition.

We quote per 100 lbs. as follows: Domestic soda ash in bulk is worth 2½c. per 100 lbs. less than quotations below:

Articles.	Domestic.		Foreign.
	F.o.b. Works.	In New York.	In New York.
Alkali, 58%.	80@85	.....	85@87½
" 48%.	85@90	.....	.....
Caustic Soda, high test	$1.90@$1.95	.....	1.85@1.87½
powd., 60%	.....	2.75	.....
70@74%	.....	2.85	.....
98%	.....	3 25	3.75@4.00
Sal Soda	50	60	67½
" conc	1.25@1.50	.....	1.75
Bicarb. Soda	1.00@1.12½	.....	1.37½@3.00
" " extra	3.25@3.50	.....	.....
Bleach Pdr., Am. prime	1.80	.....	.....
Eng. prime	.....	.....	2.00@2.10
other brands	.....	.....	1.75@1.90
Chl. Pot cryst	.....	8.00@8.25	9.25@9.50
" powd.	.....	8.25@8.50	9.50@9.75

Cyanide of Potash.—Makers abroad report an exceptionally quiet time. In Great Britain comparatively few large orders are being booked for export, and makers quote 98% at 10d. (20c.) per lb. German makers quote correspondingly low prices. In New York importers are selling at 25c. and less, which must yield a rather small profit after deducting the duty of 12½%.

Acids.—Better demand for nearly all kinds of acid, while prices are generally maintained. The deliveries of sulphuric acid in March were larger than the two previous months, and the export trade is improving. Consumption of sulphuric acid made from pyrites is growing, and in the fertilizer industry especially it is steadily replacing brimstone acid. Tartaric acid makers continue to scramble for business, with the result that crystals are lower at 28@28¼c. per lb., and powdered at 28¾@29¼c. Blue vitriol shows a good export movement.

Quotations as below are for large lots delivered in New York and vicinity, per 100 lbs. unless otherwise specified.

Acetic, No. 8	$1.62½	Nitric, 36°	$3.87½
Blue Vitriol	5.00@5.25	Nitric, 38°	4.12½
Aqua Fortis, 38°	3 62½	Nitric, 40°	4.37
Aqua Fortis, 38°	3 87½	Nitric, 42°	4.75
Aqua Fortis, 40°	4.12½	Oxalic	5.75@6.00
Aqua Fortis, 42°	4.50	Sulphuric, 66°	1.20
Muriatic, 18°	1.20	Sulphuric, 60°	1.05
Muriatic, 20°	1.35	" bulk 50° ton	14.00
Muriatic 22°	1.50		

Brimstone.—Prices are better than last year, notwithstanding the smaller imports. In March spot sales of best unmixed seconds averaged $24⅞ per ton, while shipments were $21.76, making the average for the quarter $24.43 and $21.53 respectively, with best thirds $2 less. The renewal of the contract with the producers' syndicate is partly responsible for these high prices. The Anglo-Sicilian Sulphur Company's profits for the half-year ended January 31st, 1901, warranted the payment of an interim dividend on its preferred shares, at the rate of 6% per annum, which was paid recently. This week we imported 6,430 tons of brimstone at New York. Freight rates from Sicily to this port are quoted at 6s. 9d.@7s. ($1.62@$1.68). Best unmixed seconds are quoted at $22@$23 per ton on spot, and $21.25@$21.50 for shipment. Best thirds are worth $2 per ton less than seconds.

Pyrites.—Importers report a good business. The American mines are producing regularly, and report a good demand on contract at unchanged prices. We quote per ton as follows: Mineral City, Va., lump ore, $4.90 per long ton, and fines $4.50. Charlemont, Mass., lump, $5.50 and fines $5. Spanish pyrites, 12c. per unit delivered ex-ship New York and other Atlantic ports. Spanish pyrites contain from 46@51% of sulphur; American from 42@44%.

Sulphate of Ammonia.—Demand has been aroused by easier prices, shipments being quoted at $2.72½@$2.75 per 100 lbs., and spot $2.77. Latest advices from abroad state that the market is weak and quotations are for Beckton, £10 8s. 9d. ($50.70 per long ton); London (outside makes), £10 11s. 3d. ($51.30); Hull, £10 10s. @£10 11s. 3d. ($51@$51.30); Leith, £10 15s. ($52.20).

Potash Salts.—Quiet. Agents of the German Kali Works quote net prices as follows for New York, Boston or Philadelphia shipment: Muriate of potash, 80@85%, $1.83 per 100 lbs.; muriate of potash, 95%, $1.86; sulphate of potash, 90%, $2.11; sulphate of potash, 96%, $2.13 per 100 lbs.; double manure salt, 48@53%, $1.12 per 100 lbs.; kainit, testing 12.4% actual potash, $9.05 per long ton; sylvinit, 38½c. per unit of sulphate of potash; manure salt, 20% actual potash, 66c. per 100 lbs.

Nitrate of Soda.—Spot and future deliveries are quoted the same, $1.80 and $1.82½ per 100 lbs. In March the spot prices averaged $1.82 per 100 lbs. and shipments ruled at $1.80@$1.85 according to position. Last year the spot price was $2.18 and shipments $1.70@$1.85. Concerning the market abroad advices state that bad weather has delayed arrivals and interfered with consumption. Consequently spot prices have been pretty well maintained, though it is intimated that this and next month's deliveries on the Continent are being offered at a heavy discount. The shipments to Europe from the west coast of South America in the quarter ending March 31st are estimated at 220,000 long tons, which is a falling off of 22,000 tons as compared with last year. But the larger visible supply in Europe this year, owing to the delinquent consumption, will certainly affect market prices unless the nitrate producers' combination, which went into effect on April 1st, studies the situation more closely.

Concerning the Chile nitrate of soda market, we learn from Messrs. Jackson Brothers, of Valparaiso, under date of February 23d, that seldom has there existed less animation owing to the absence of orders for either prompt or forward deliveries. At the same time the Carnival holidays observed in the Tarapaca ports prevented business with that district. This stagnancy is in a great measure due to the falling off in deliveries in consuming markets, owing to the severe winter being experienced in Europe. The production during January is advised as 2,252,500 qtls., as against 2,679,000 qtls. in the same month last year. We quote 95%, February-March shipment, at 5s. 11d.; April, 5s. 10d.; May-June, 5s. 11d., and July-December, 5s. 11½d.; the 96% quality being held for 6s. 2½d. February-March, and 6s. 0½d. for April-June, all ordinary terms sellers. The price of 5s. 11d. for 95%, with an all-round freight of 25s., stands in 7s. 10d. per cwt., net cost and freight, without purchasing commission. Sales for the fortnight ended February 23 aggregate 40,300 qtls., and re-sales, 66,000 qtls.

Messrs. Mortimer & Wisner's monthly statement of nitrate of soda, dated New York, April 1st, gives the following statistics:

	1901.	1900.	1899.
	Bags	Bags.	Bags
Imp. into Atlantic ports from West Coast S. A., from Jan. 1, 1901, to date	357,989	225,489	132,175
Imp. from Jan. 1 from Europe	.....	.....	.....
	357,989	225,489	132,175
Stock in store and afloat April 1, 1901, in New York	28,481	36,251	49,443
Boston	1,000	.....	.....
Philadelphia	.....	.....	.....
Baltimore	.....	.....	1,500
Norfolk, Va	.....	.....	.....
Charleston	.....	.....	.....
To arrive, due July 15, 1901	274,007	343,000	278,000
Vis. supply to July 15, 1901	303,488	379,251	328,943
Stock on hand Jan. 1	13,446	9,586	58,406
Deliveries past month	118,340	60,492	43,162
Deliveries since Jan. 1, to date	341,954	198,821	139,638
Total yearly deliveries	.....	1,173,651	976,592
Prices current, April 1	$1.80	$2.10@2⅛	$1.60

Saltpeter.—Easier. Crude is quoted $3.20@$3.35 per 100 lbs., and refined at $4.25@$5.25 per 100 lbs., according to grade and quantity.

The imports into the United States in the quarter ending March 31st amounted to 12,582 bags, which is 8,096 bags less than last year. The deliveries were 14,457 bags, as compared with 18,078 bags in the corresponding three months in 1900. The visible supply on April 1st is estimated at 16,688 bags, or 2,877 bags less than last year.

Phosphates.—Some 1902 export orders for high grade Florida rock are reported at $12.48 per long ton delivered abroad, while 1903 shipments have been inquired for, though no contracts of note have been booked. In Florida there is still some talk about the proposed hard rock producers' combination in which foreign houses are interested. We also hear that the pebble miners recently held a meeting and organized for the purpose of building a railroad from their mines in Polk County to Port Tampa. The shipments of pebble phosphates from this port last year amounted to over 212,000 tons, which is equal to about 36% of the entire phosphate shipments from the State. Recently a charter was booked from Savannah to Harburg, Germany, at 15s. ($3.60), April-May sailing. Tennessee miners report a fair business for export, while the domestic trade is looking up better. In South Carolina stocks continue large, though they are growing less with an improved home demand.

Foreign phosphates are quiet, and in Christmas Island the stormy weather has interfered with shipments.

Phosphates	Per Ton F. o. b.	C. i. f. Un'd Kingdom or European Ports.	
		Unit.	Long ton.
*Fla. hard rock (77@80%)	$6.50@7 00	7¼@7¾d	$11.31@12.09
*Fla. land pebble (68@73%)	3 85@4.00	6¼@6½d	8.75@9 10
*Fla. Peace River (58@63%)	2.50@2.75	6¼@6½d	7.50@7.80
†Tenn. rock 78%, export	3.25@3.50	6¾@7d	10.53@10.92
†Tenn. 78% domestic	3 00	.....	.....
†Tenn. 75% "	2.75	.....	.....
†Tenn. 70@72% "	2.00@2.50	.....	.....
‡So. Car. rock, crude	2.50@2.75	.....	.....
§So. Car. rock, dried	3.25	6d	7.00
Algerian, rock (63@70%	.....	6½@7d	8.71@9.38
Algerian, rock (58@63%)	.....	6 @6½d	7.20@7.88
Tunis, Gafsa	.....	6 @6½d	7.20@7.80

* Fernandina, † Mt Pleasant. ‡ At mines. § On vessels, Ashley River.

Liverpool. Mar 20.

(Special Report of Joseph P. Brunner & Co.)

There is no change of any moment to report respecting the condition of our market for heavy lines of chemicals.

Soda ash is quiet at usual varying quotations according to market, and nearest range for tierces may be called about as follows: Leblanc ash, 48%, £5 15s.@£6; 58%, £6 2s. 6d.@£6 7s. 6d. per ton, net cash. Ammonia ash, 48%, £4 10s.@£4 15s.; 58%, £4 15s.@£5 per ton, net cash. Bags, 5s. per ton under price for tierces. Soda crystals are in moderate demand at £3 7s. 6d@£3 10s. per ton, less 5% for barrels, or 7s. less for bags, with special terms for certain favored

markets. Caustic soda is meeting with rather more inquiry. Quotations are without change, as follows: 60%, £9 5s.; 70%, £10 5s.; 74%, £10 15s.; 76%, £11@£11 5s. per ton, net cash.

Bleaching powder is difficult to move, but quotations are nominally unaltered at about £7@ £7 5s. per ton, net cash for hardwood packages, with special quotations for certain competing markets.

Chlorate of potash is in light demand and quoted at 3½d. per lb., net cash.

Bicarb. soda quiet, but steady at £6 15s. per ton, less 2½%, for the finest quality in 1 cwt. kegs, with usual allowances for larger packages; also special terms for a few favored markets.

Sulphate of ammonia is neglected and prices have dropped to nominally £10 15s. per ton, less 2½%, for good gray, 24@25% in double bags, f. o. b. here.

Nitrate of soda is still held for £8 12s. 6d.@ £8 17s. 6d. per ton, less 2½% for double bags f. o. b. here, as to quantity and quality, and there is a moderate trade passing on spot.

IRON MARKET REVIEW.

NEW YORK, Apr. 5, 1901

Pig Iron Production and Furnaces in Blast.

Fuel used	Week ending Apr. 6, 1900.		Week ending Apr. 5, 1901.		From Jan., 00.	From Jan., '01
	F'ces.	Tons.	F'ces.	Tons.	Tons.	Tons.
An' racite & Coke.	260	283,350	222	285,750	3,955,152	3,673,732
Charcoal.	29	7,025	26	8,175	103,388	108,902
Totals.	289	290,375	248	293,925	4,058,540	3,782,634

The volume of business in iron and steel continues very large, and it is now generally accepted that trade will be active for the first half of the year at least. Any necessity for manipulation of the market in the interest of the steel combination has passed, and is no longer a factor. It is probable, however, that some part of the present activity is due to the desire of buyers to cover their requirements as far as possible and thus avoid a possible increase of prices by the trust.

The organization of the United States Steel Corporation is noted elsewhere. The board of directors is one of financiers, rather than of practical steel men. The inclusion of Mr. Abram S. Hewitt in the board is rather a surprise; it was probably intended as a compliment to his many years' experience.

Export trade is very quiet. In the present condition of the trade abroad not much business can be expected from European countries, while British and German firms are cutting prices and competing sharply with our own for orders in other countries.

Birmingham, Ala. Apr. 1.

(From Our Special Correspondent.)

Demand is still active and inquiries are being received freely. There is talk of another advance of 25c. per ton, making $1.25 per ton advance in the last 6 weeks. The advance has not disturbed demand. In the last 2 weeks there have been a couple of furnaces blown in while others will blow in before April 15th. There are 3 furnaces almost ready for the torch in the State, including the Talladega Furnace, which will probably not begin operation until May or June. The production now is larger than ever before. The Sloss-Sheffield Steel and Iron Company has its 4 furnaces at North Birmingham and in this city in blast. The iron that accumulated during the dull period is being worked off steadily.

Four of the 5 blast furnaces of the Tennessee Coal, Iron and Railroad Company at Ensley are in operation.

The following quotations are given: No. 1 foundry, $11.75@$12.25; No. 2, $11.25@$11.75; No. 3, $10.75@$11; No. 4, $10.25@$10.50; gray forge, $10; No. 1 soft, $11.75@$12.25; No. 2, $11.25@$11.75.

There is a good demand for finished iron and steel and the rolling mills are in full operation. The little rolling mill at Anniston, Ala., recently purchased by Birmingham parties and repaired, is in operation. This plant will give employment to about 100 hands.

The steel plant at Ensley has half of the open-hearth furnaces in operation. The work on the steel rail mill being constructed by the Tennessee Coal, Iron and Railroad Company is being rushed and it will be ready within the next 3 months. The plant will have a large capacity.

It is denied positively that the Sloss-Sheffield Steel and Iron Company is to become part of a merger with the Tennessee Company and Republic Iron and Steel Company.

Buffalo. Apr. 3.

(Special Report of Rogers, Brown & Company.)

Pig iron has been in great demand for the past week. The tonnage booked will exceed the capacity of local furnaces for months to come. Prices have been held almost stationary, through a desire to prevent anything like an unwarranted advance. Purchases made, as far as can be ascertained, are in every case simply to cover actual wants. We quote below on the cash basis, f. o. b. cars Buffalo: No. 1 strong foundry iron, Lake Superior ore, $15.75; No. 2, $15.25; Southern soft No. 1, $16.65; No. 2, $16.15; Lake Superior charcoal, $17.50; coke malleable, $15.50.

Cleveland, O. Apr. 3.

(From Our Special Correspondent.)

Iron Ore.—All efforts to fix ore prices for the coming season have so far proved futile. The understanding is that the decision is withheld awaiting future action of the United States Steel Corporation in taking in the ore properties, which, by removing possible competition, will make it easier to fix a price which can be demanded with impunity. It is understood now that the combination of interests will affect the market in so far that an increase in price will be demanded over last year. It will not be a large one, but sufficient to net the producers a neat sum in the aggregate. The combination, however, is forced to be more or less conservative, owing to the possibility of Canadian ores being shipped in by the lake route and finding a market with the merchant furnaces which otherwise are more or less dependent upon the product of the mines owned or to be acquired by the United States Steel Corporation. But little talk of freight for the season has been indulged in, although it is known that the vessel owners have decided to open the season early without regard to the strike of the marine engineers. The season being thus lengthened will have a tendency to lower freights and it is understood that contracts could now be made on a basis of 80c. without difficulty.

Pig Iron.—The scarcity of pig iron has strengthened the market greatly in the last week, forcing the foundry grades up. Bessemer and basic would also have shown an increase had there been any material to sell, but most of the product has been sold up until July 1st. The present owners of the merchant furnaces are not at liberty to sell much beyond that time, as they have given options on their plants to a syndicate wishing to promote a combination, and these expire on July 1st. Bessemer is quoted at $16.50 and basic at $16; foundry No. 1, $15.50 and No. 2, $15.

Finished Material.—Billets have advanced this week and the producer, in fact, now has the privilege of demanding his own prices with reasonable assurance that he will have them paid. The material is very scarce and the need at times is urgent. A number of sales have been made lately as high as $28 for both Bessemer and open-hearth billets, both standing now on the same footing. Other than this the market has been steady and strong. Good-sized orders for rails, bars and structural material have been placed this week, each grade showing up transactions ranging about 5,000 tons in the aggregate. The rails are mostly for electric lines through Northern Ohio, and the structural shapes go into buildings which are to be placed in Cleveland. In this grade inquiries have been heavy since the advance to 1.60, Pittsburg, on beams and channels and angles. Plates are in fair demand only. It seems now that the mills are getting a little short on orders and will be courting business soon. The prices hold firmly as follows: Billets, $28; plates, 1.60c.; beams, channels and angles, 1.70c.; rails, $26; bars, 1.55c.

Old Irons.—The scrap trade is lively and a number of sales of moderate size have been made. There has been no change in prices, so the market is represented in the following: Wrought turnings, $10; cast borings, $6.50; car wheels, $19; steel rails, $16; iron rails, $21; cast scrap, No. 1, $13; wrought scrap, No. 1, $17.50.

Philadelphia, Pa. Apr. 4.

(From Our Special Correspondent.)

Pig Iron.—The views expressed to-day by at least three-fourths of the pig iron representatives again confirms the views expressed by some sources heretofore that the extraordinary consumption in progress had not yet reached its maximum limits. Just at present there is a lull in actual buying, but the strong upward tendency still exists without leading to actual advances. The great body of consumers is now moderately supplied. Leading makers do not accept the view that the rush for autumn requirements will assume very large proportions. The large concerns which have purchased so heavily of basic and Bessemer are willing to let the market drift a few weeks. Some grades of iron are selling in a small way at the 25c. advance made last week, but the enormous output will check an advance on large transactions. On basic and Bessemer information must be sought for at Pittsburg, as this market is simply a reflection of it. At present No. 1 X foundry is $16@$16.50; No. 2 X, $15.50; No. 2 plain, $14.50; forge, standard, $14.50; ordinary, $13.50. Bessemer is held at $15.25, but easy deliveries are out of the question.

Billets.—The greatest difficulty mentioned this week among those representing buyers is to get steel for early delivery. Manufacturers make no effort to promise accommodations to buyers, and buyers are between two fires on the matter of prices. One quotation given to-day is $27.

Merchant Bars.—The discussion over bar iron prices recently has been an advantage. Better prices are paid this week. The advance of a tenth is being realized on the small trade, particularly in steel bars, which are wanted badly for best delivery mills can make. The entire bar iron situation has improved, but it has not been due to the large buyers.

Skelp.—The skelp makers are getting more and more crowded with orders and some orders taken this week shows the stuff can sell at $2 per ton more. Though the mill people do not say it, the conditions point to a general advance.

Sheets.—The same robust market conditions continue. The advance scored is only preparing the way for another, but an insider thinks the volume of urgent requirements are pretty well covered. Mill men do not care to sell for more remote delivery and in some cases have advised their customers to "bide a wee," as the Scotch say.

Merchant Steel.—This market shows some signs of life. All kinds used in this territory are being bought freely, but not very far beyond current requirements.

Pipes and Tubes.—The greater demands in oil fields far and near are quietly stimulating this market. The probability of advancing prices makes users more prompt to place orders.

Plates.—To-day's reports are substantially a repetition of recent weeks. All material is selling above card rates, but those who are figuring now for late summer deliveries are bearing heavily on the possibility that the present urgency will have died out. It is clear that a heavy demand is before us.

Structural Material.—At the recent advance there is even more business in small lots offered and not so much in very large lots. The mills are not in a position to promise much until July. It is probable that quite a number of orders for delivery between now and June 30th will be enlarged. So that new-comers into the market will find themselves elbowed aside. Angles are 1.80c.

Steel Rails.—The only information given is that fair-sized orders continue to drop in. There is a falling off in foreign orders. Girder rail inquiries and orders are increasing. A good many light rails are being ordered for remote localities. Some orders are booked involving exchanges for old rails.

Scrap.—The advancing prices of scrap are having some influence on the prices of everything into which it enters. Old rails are $20 for iron and $16 for steel. Railroad scrap is $20; iron axles $23 and steel $18; old car wheels, $4.17; heavy steel scrap, $16.50; machinery cast, $14.50.

Pittsburg. Apr. 3.

(From Our Special Correspondent.)

While the prices of Bessemer pig iron is a shade weaker, the aggregate sales and number of inquiries are greater than a week ago. Merchant furnace owners are reluctant to make public the exact figures on sales, but from reliable reports it is estimated that in the neighborhood of 40,000 tons were contracted for during the week at prices ranging from $15.75 to $16.25, Valley furnaces. Of this amount the Carnegie Steel Company bought 15,000 tons for delivery during this and next month. It is reported that this concern, which is now a part of the United States Steel Corporation, is in the market for 60,000 additional tons of Bessemer pig for delivery during the second half of the year, but the report could not be verified to-day. Forge and foundry iron continue firm, but the sales were not as large as last week. The threatened strike of blast furnace workers for an increase in wages did not occur on April 1st. An advance which averaged about 10% was granted by the operators at the different furnaces in the Valleys and the men continued at work. Progress is being made on the project to form a combination of the merchant blast furnaces and several additional options were secured during the week. It now seems almost certain that the movement will be a success.

The demand for steel continues heavy. Most of the producers of Bessemer steel billets are out of the market. Not more than 1,000 tons were sold this week and $24.50 is now the price. Open-hearth billets cannot be had this week, but are quoted at $28. The demand for plates is as heavy as last week and a premium can be had for prompt shipment. A meeting of the plate pool is scheduled to be held in New York tomorrow, but it is not believed any change will be made in prices. Steel bars are in greater demand this week and also command a premium.

At a meeting of the directors of the Crucible Steel Company of America on Monday it was decided to form the St. Clair Furnace Company and erect two large blast furnaces at Blair Station, near Pittsburg, to cost about $1,500,000. Work will not be started until summer. The furnaces will adjoin the new plant of the St. Clair Steel Company, which is a part of the crucible steel combination. The contracts for the new steel plant are now being let. The Forter-Miller Engineering Company, of this

city, will build 12 50-ton open-hearth steel furnaces and 5 soaking pits. The work will begin this week. A representative of the old established steel firm of Wm. Jessop & Sons, of Sheffield, England, is in the country. He claims to be looking for a site near Pittsburg on which to erect a large crucible steel plant. Nothing definite, however, has yet been done looking to the carrying out of the project.

Pig Iron.—Probbly 40,000 tons of Bessemer pig iron were contracted for during the week. The price is from 25c. to 50c. a ton lower than last week, sales having been made at $15.75@$16.25, Valley furnaces. An unusual number of inquiries are being received. Foundry No. 2 continues firm at $15@$15.25 and gray forge at $14.50 @$14.75. Only a few thousand tons were sold.

Steel.—The demand for all lines of steel products continues and prices are firm. About 1,000 tons of Bessemer steel billets were sold at $24.50. Open-hearth billets are quoted at $30, but no sales were recorded this week. Tank plates are still quoted at 1.50c., but sales are made at fully $1 a ton higher for prompt shipment. There is an unusual demand for steel bars and the price is firm at 1.50c.

Sheets.—The American Sheet Steel Company has put a number of additional mills in operation this week. The demand continues, but prices remain unchanged. No. 28 is quoted at 3.30@3.35c. and galvanized sheets are 70 and 5% and 70% off, with no freight allowance.

Ferro-manganese.—The leading producer continues to quote 80% domestic at $62.50.

New York. Apr. 5

Pig Iron.—The market is, if anything, more active. Southern irons are now as high, if not higher than, northern brands. We quote for Northern iron, tidewater delivery: No. 1 X foundry, $16.25@$16.75; No. 2 X, $15.50@$16; No. 2 plain, $14.50@$15; gray forge, $14.50@$14.75. For Southern irons on dock, New York, No. 1 foundry, $16@$16.50; No. 2, $15.50@$15.75; No. 3, $14.75 @$15.25; No. 4, $13.75@$14.25; No. 1 soft, $16.25@ $16.50; No. 2, $15.50@$15.75.

Bar Iron and Steel.—Business continues pretty good with prices firm. We continue to quote common bars at 1.35c. for large lots on dock; refined bars, 1.45c.; soft steel bars, 1.50c.

Plates.—Eastern mills are very busy. Prices have been advanced $2 per ton. Some mills allied with the United States Steel Company quote universals higher than sheared plates. We quote for large lots at tidewater: Tank, ¼-in. and heavier, 1.78c.; flange, 1.88c.; marine, 2.05c.; universals, 1.78c.

Steel Rails and Rail Fastenings.—Business is fairly good. Foreign mills are quoting very low prices, which are likely to affect our foreign trade decidedly. However, orders for 13,000 tons from Australia have been taken recently by American mills. Standard sections are still quoted at $26 at Eastern mills; light rails at $26@$30, according to weight. Spikes are 1.55c.; splice bars, 1.30c.; bolts, 2.10@2.25c.

Structural Material.—Demand continues. A number of large contracts have been taken recently. We quote for large lots at tidewater as follows: Beams, 1.75c.; channels, 1.75c.; angles, 1.75c.

METAL MARKET.

New York. Apr. 5.

Gold and Silver.

Gold and Silver Exports and Imports
At all United States ports in February and year.

Metal.	February.		Year.	
	1900.	1901.	1900.	1901.
GOLD.				
Exports	$1,403,658	$417,612	$7,094,948	$8,638,771
Imports	1,911,116	1,830,274	3,903,808	5,991,286
Excess	I. $507,458	I. $1,412,662	E. $3,191,140	E. $2,647,485
SILVER.				
Exports	4,952,844	4,580,499	9,552,043	9,370,738
Imports	2,841,033	2,829,927	5,015,606	5,998,961
Excess	E. $2,111 811	E. $1,750,572	E. $4,536.437	E. $3,371,777

These figures include the exports and imports at all United States ports, and are furnished by the Bureau of Statistics of the Treasury Department.

Gold and Silver Exports and Imports, New York

For the week ending April 4th, 1901, and for years from January 1st, 1901, 1900, 1899 and 1898.

Period	Gold.		Silver.		Total Excess, Exp. or Imp.
	Exports.	Imports.	Exports.	Imports.	
We'k	$1.528,338	$34,361	$734,795	$55,625	E. $2,173,147
1901..	10,808,303	813,246	9,862,704	1,081,294	E. 18,776,467
1900..	2,948.784	1,135,400	11,066,040	1,171,192	E. 11.648,233
1899..	1,539,079	4,678,829	8.166,603	836,062	E. 4,190,791
1898..	3,841,031	34,163,047	10,466,487	1,383,511	I. 21,239,040

Exports of gold were chiefly to France; of silver to London. Imports of gold were from the West Indies; of silver from Mexico and Central America.

The United States Assay Office in New York reports the total receipts of silver at 93,000 oz. for the week. This makes a total of 986,000 oz. from January 1st.

Average Prices of Silver per oz. Troy.

Month.	1901.		1900.		1899.	
	Lond'n Pence.	N. Y. Cents.	Lond'n Pence.	N. Y. Cents.	Lond'n Pence.	N. Y. Cents.
January...	28.97	63.12	27.30	59.30	27.42	59.36
February..	28.13	61.06	27.49	59 76	27.44	59.42
March.....	27.94	60.63	27.59	59.81	27.48	59.64
April.....	.....	.....	27.41	59.59	27.65	60.10
May.....	.....	.....	27.56	59.96	28.15	61.23
June.....	.....	.....	27.81	60.42	27.77	60.43
July.....	.....	.....	28.23	61.25	27.71	60.26
August....	.....	.....	28.13	61.14	27.62	60.00
September	.....	.....	28.85	62.63	27.15	58.89
October ..	.....	.....	29.58	63.83	26.70	57.98
November	.....	.....	29.66	64.04	27 02	58.67
December.	.....	.....	29.68	64.14	27.21	58.99
Year....	.....	.....	28.17	61.41	27.44	59.58

The New York prices are per fine ounce; the London quotation is per standard ounce, .925 fine.

Average Prices of Metals per lb., New York.

Month.	COPPER.		TIN.		LEAD.		SPELTER.	
	1901.	1900.	1901.	1900.	1901.	1900.	1901	1900.
Jan.....	16.25	15 58	26.51	27.07	4.35	4.68	4.13	4.65
Feb.....	16.38	15.78	26.68	30.58	4.35	4.675	4.01	4.64
March...	16.42	16.29	26.03	32.90	4.35	4.675	3.92	4.60
April....	.....	16.76	.....	30.90	.....	4.675	.....	4.71
May.....	.....	16.34	.....	29.37	.....	4.181	.....	4.53
June.....	.....	15.75	.....	30.50	.....	3.901	.....	4.29
July.....	.....	15.97	.....	33.10	.....	4.030	.....	4.28
August..	.....	16.35	.....	31.28	.....	4.250	.....	4.17
Sept.....	.....	16.44	.....	29.42	.....	4.350	.....	4.11
October..	.....	16.37	.....	28.51	.....	4.350	.....	4.15
Nov.....	.....	16.40	.....	28.25	.....	4.350	.....	4.29
Dec.....	.....	16.31	.....	26.94	.....	4.350	.....	4.25
Year.....	.....	16.19	.....	29.90	.....	4.37	.....	4.39

The prices given in the table for copper are the averages for electrolytic copper. The average price for Lake copper for the year 1900 was 16.52c.; for the month of January, 1901, it was 16.77c.; for February, 16.90c; for March, 16.94c.

Prices of Foreign Coins.

	Bid.	Asked.
Mexican dollars	$ .48	$ .50½
Peruvian soles and Chilean pesos	.42	.46½
Victoria sovereigns	4.85	4.88
Twenty francs	3.84	3.88
Twenty marks	4.74	4.80
Spanish 25 pesetas	4.78	4.82

Financial Notes of the Week.

Little change from last week's business conditions is to be reported. The speculative markets are still active, but inclined to reaction. Money is somewhat less easy. Gold exports were $1,000,000 to Paris.

Silver has continued to decline and appears weak at 26 15/16d. The absence of the Indian Government as a buyer, the selling out of weak speculative holdings and dearer money have all tended toward repression. The market closes quite steady at the decline.

The statement of the United States Treasury on Wednesday, April 3d, shows balances in excess of outstanding certificates as below, compared with the corresponding day last week:

	Mar. 27.	Apr. 3.	Changes.
Gold	$97.245,357	$100,447,485	I. $3,202,128
Silver	18,090.109	17,416,009	D. 674,100
Legal tenders	10,169,941	9,649,558	D. 520,383
Treas. notes, etc..	127,717	112,555	D. 15,162
Totals	$125,633,124	$127,625.607	I. $1,992.483

Treasury deposits with national banks amounted to $98,062,861, showing an increase of $765,345 as compared with the corresponding day last week.

The statement of the New York banks—including the 66 banks represented in the Clearing House—for the week ending March 30th give the following totals, comparison being made with the corresponding week in 1900 and 1899:

	1899.	1900.	1901.
Loans and discounts.	$779,951,100	$742,611,900	$916,889,900
Deposits	898.917,600	807,816,000	1,064,288,200
Circulation	13.870,660	20,136,000	31,635,000
Reserve:			
Specie	187.144,300	146,273,800	186,570,800
Legal tenders	53,079,800	65,516,500	72,370,500
Total reserve	$240.224,100	$211,790,300	$258,941,300
Legal requirements	224.729,250	201,954,150	251,070,800
Balance, surplus	$15,494 850	$9,836,150	$7,870,500

Changes for the week, this year, were increases of $6,110,800 in loans and discounts, $3,-824,900 in deposits, $109,900 in circulation, and $471,800 in legal tenders; decrease of $1,917,500 in specie, and $2,401,925 in surplus reserve.

The following table shows the specie holdings of the leading banks of the world at the latest dates covered by their reports. The amounts are reduced to dollars, and comparison is made with the holdings at the corresponding date last year:

Banks.	1900. Gold.	1900. Silver.	1901. Gold.	1901. Silver.
N.Y. Ass'd..	$146,273,800	.....	$186,570,800	.....
England....	175,649,985	.....	18 ,939,325	.....
France.....	388,763,330	$228.207,305	475,574,210	$219,821,145
Germany....	122,705,000	63,210,000	151,910,000	78.260,000
Spain.....	68.365,000	77,170,000	70,010,000	82,800,000
Neth'l'ds....	24,840,000	30,590,000	25,292,000	25,352,000
Belgium....	14,705 000	7,350,000	14 965.000	7,480,000
Italy.....	77,130,000	8,605,000	76 225,000	9,651,000
Russia.....	418,255,000	33,945,000	371,985,000	35 520,000

The returns of the Associated Banks of New

Imports and Exports of Metals.

Port.	Week, Apr. 3.		Year 1901.	
	Expts.	Impts.	Expts	Impts
New York.				
(N. Y. Metal Exchange.)				
Aluminum.....long tons	.....	.....	41	30
Antimony ore... " "	.....	.....	.....	188
" regulus.. " "	.....	35	19	302
Copper, fine ..... " "	859	176	17,088	4,137
" matte.. " "	.....	.....	512	30
" ore..... " "	.....	.....	.....	13,390
" ash..... " "	.....	.....	.....	.....
Iron ore..... " "	.....	75	.....	75
" pig, bar, rod " "	793	25	6,741	661
" plates, sheets " "	.....	.....	221	.....
Lead..... " "	1,665	550	21,822	15,070
" ore.. ..... " "	.....	.....	.....	.....
Manganese, ore. " "	.....	.....	100	3,680
Metals, old, scrap " "	.....	24	660	655
Composition... " "	100	.....	3,193	.....
Nails..... " "	160	.....	2,731	.....
Nickel " "	23	.....	516	29
" ore, matte " "	.....	1,705	.....	13,295
Pipe, iron & steel " "	184	.....	5,753	.....
Railr'd material. " "	401	75	8,010	605
Rails, old..... " "	.....	.....	.....	.....
Steel bars, plates " "	460	491	21,397	3,618
" rails..... " "	.....	.....	22 753	.....
" wire..... " "	649	.....	8,531	.....
Tin ..... " "	.....	220	230	7,122
" and black plates " "	.....	533	.....	6,983
" dross..... " "	.....	.....	.....	.....
Zinc..... " "	.....	.....	487	523
" dross..... " "	.....	.....	128	.....
" ashes, skim " "	38	.....	283	.....
" ore..... " "	.....	.....	4,109	.....
Baltimore.				
(Special Correspondence).				
Antimony.....long tons	.....	.....	.....	10
Chrome Ore..... " "	.....	.....	.....	301
Copper, fine ..... " "	450	75	6 398	1,703
Iron pig, bar. etc. " "	.....	120	1,218	1,907
" ore..... " "	.....	9,941	.....	70,459
Manganese ore.. " "	.....	4,854	.....	11,884
Nails ..... " "	.....	.....	306	.....
Pipe, iron & steel " "	61	.....	757	.....
Spiegeleisen..... " "	.....	.....	.....	344
Steel, bars, etc.. " "	546	.....	29,930	72
" wire ..... " "	.....	.....	563	53
" rails..... " "	.....	.....	28,709	.....
Tin..... " "	.....	.....	.....	175
" and blackplates " "	.....	.....	.....	97
Philadelphia.				
Copper, fine.....long tons	.....	.....	493	.....
" ore..... " "	.....	.....	.....	7,860
Iron, pig, bar .. " "	.....	287	172	1,942
" ore..... " "	.....	.....	.....	57,570
" pipe .. .... " "	.....	.....	880	.....
Lead..... " "	.....	.....	200	.....
Manganese ore " "	.....	.....	.....	875
Metals, old ..... " "	.....	.....	29	.....
Nails . .... " "	.....	.....	71	.....
Pipe, iron & steel " "	500	.....	500	.....
Railroad material " "	.....	.....	175	.....
Steel, bars, etc . " "	24	.....	3,761	.....
" rails ..... " "	.....	.....	3,776	.....
" wire ..... " "	35	.....	185	.....
Tin ..... " "	.....	.....	.....	165
" and black plates " "	.....	25	.....	66
Zinc ore..... " "	3	.....	2,064	.....
" dross ..... " "	6	.....	83	.....
" ash .... " "	.....	.....	32	.....

Total United States.

Articles.	February.		Year., 1901.	
	Expts.	Impts.	Expts.	Impts.
Antimony.....long tons	.....	159	.....	330
" ore.... " "	19	102	21	119
Copper, in all forms.... " "	6,453	4,510	16,456	12,490
Iron, pig & bar.. " "	11,310	3,092	36,032	5,368
" ore..... " "	402	39,375	842	72,728
Iron & steel plates " "	3,978	120	9,213	308
Iron & steel rails " "	23,801	1	49,397	117
" " wire " "	5,279	126	11,618	954
Lead, in all forms " "	7,825	7,969	18,206	23,421
Manganese ore and oxide..... " "	.....	472	.....	9,281
Nickel " & matte " "	134	3,588	374	3,600
Nails, cut..... " "	331	.....	3,498	.....
" wire..... " "	1,357	.....	3,050	.....
Quicksilver.... " "	41	.....	65	.....
Steel, billets, rods, etc..... " "	11,790	2,110	20,777	3,381
Tin..... " "	324	2,461	376	5,777
" & black plates " "	260	6,256	361	10,551
Zinc..... " "	641	1	691	130
" ore ..... " "	4,110	.....	7,171	.....

Import Duties on Metals.

The duties on metals under the present tariff law are as follows: Antimony, metal or regulus, ¾c. a lb. Lead, 1½c. a lb. on lead in ores; 2½c. per lb. on pigs, bars, etc.; 2½c. on sheet, pipe and manufactured forms. Nickel, 6c. per lb. Quicksilver, 7c. per lb. Spelter or zinc, 1½c. per lb. on pigs and bars, 2c. on sheets, etc. Copper, tin and platinum are free of duty.

York are of date of March 30th and the others are of date of March 29th, as reported by the "Commercial and Financial Chronicle" cable. The New York banks do not report silver separately, but the specie carried is chiefly gold. The Bank of England reports gold only.

The coinage executed at the Mints of the United States in March and the three months of this year is reported by the Bureau of the Mint as below:

Denominations	—Feb., 1901.— Pieces.	Value.	—Three Months.— Pieces.	Value.
Double eagles	115,048	$2,300,960.00	256,478	$5,129,560.00
Eagles	266,038	2,660,380.00	1,474,478	14,474,780.00
Half eagles	214,045	1,220,225.00	1,638,945	8,191,725.00
Quar. eagles	235	587.50	235	587.50
Total gold	625,366	$6,182,152.50	3,370,136	$28,069,652.50
Dollars	1,542,350	1,542,350 00	5,360,350	5,360,350.00
Half-dollars	760,350	380,175.00	1,436,350	718 175.00
Quar.-dollars	3,260.350	815,087.50	4,577,014	1,144,253.50
Dimes	3,829,680	382,968.00	8,529,680	852,968.00
Total silver	9,392,730	$3,120,580.50	19,903,394	$8,075,746.50
Five c. nickels	862,900	43,145 00	4,471,900	223,595.00
One c. bronze	4,703,900	47,039.00	12,656,900	126,569.00
Total minor	5,566,800	$90,181.00	17,128,800	$360,164.00
Total coinage	15,584,896	$9,392,917.00	40,402,330	$36,505,563.00

In the first quarter of this year the total coinage shows a falling off of $13,650,753, or 27.2%, as compared with the corresponding period in 1900. The decrease in gold alone is $9,442,489, or 25.2%. On the other hand, the silver coinage is $5,871,713, or 73% greater than last year.

The Treasury Department makes the following estimate of the money in the United States on April 1st:

	Total Stock.	In Treasury.	In Circulation.
Gold coin (inc. bullion in Treas)	$1,124,157,697	$249,046.644	$623,824,954
Gold Certificates	.....	.....	248,286,099
Silver Dollars	512,536,160	13,029,880	72,299,960
Silver Certifi	.....	.....	427,206,320
Subsid. Sil	89,769.906	9,016,790	80.853.107
Treas. Nts of 1890	53,881,000	1 2,768	53,728,232
U. S. Notes	346,681,016	9,791,535	336,889,481
Currency Certifi	.....	.....	.....
Nat. Bank Notes	350,101,406	8,945,979	341,155,427
Totals	$2,477,227,185	$289,983,605	$2,187,243,580

Population of the United States April 1st, 1901, estimated at 77,427,000; circulation per capita, $28.25. For redemption of outstanding certificates an exact equivalent in amount of the appropriate kinds of money is held in the Treasury, and is not included in the account of money held as assets of the Government. This statement of money held in the Treasury as assets of the Government does not include deposits of public money in national bank depositaries to the credit of the Treasurer of the United States, and amounting to $91,163,055. The amount in circulation shows a decrease of $3,365,564 from March 1st, but an increase of $165,969,074 as compared with April 1st, 1900.

Imports of specie at San Francisco by water in February were $642,378. For the two months ending February 28th they were:

	Gold.	Silver.	Totals.
Bullion	$2,674,262	$367,084	$3,041,946
Coin	604,003	53,546	657,549
Totals	$3,278,265	$421,230	$3,699,495

The total for the two months in 1899 was $443,131. The receipts this year were from the following sources: Mexico, $505,825; British Columbia, $14,263; Australia, $1.479,416; Japan, $1,649,200; China, $39,840; Central America, $10,111; French Oceanica, $840.

Imports in February embraced $556,976 in gold bullion, mostly from Australia, $8,202 in gold coin and $77,200 in silver bars. Not a Mexican dollar came through the Custom House, an unusual omission. The large amount from Japan is an unusual feature.

Shipments of silver from London to the East for the year up to March 21st, 1901, are reported by Messrs. Pixley & Abell's circular as follows:

	1900.	1901.	Changes.
India	£1,294,062	£2,036,500	I. £742,438
China	265,324	109,875	D. 155,449
The Straits	46,150	48,976	I. 2,826
Totals	£1,605,536	£2,195,351	I. £589,815

Arrivals for the week, this year, were £196,000 in bar silver from New York, £8,000 from the West Indies and £2,000 from Australia; total, £206,000. Shipments were £85,000 in bar silver to Shanghai, £85,000 to Calcutta and £79,000 to Bombay; total, £249,000.

Indian exchange remains at about the same level, Council bills selling in London at 15.91d. per rupee. It is announced that the Indian Government has decided to set aside as a reserve fund the profits made from the coinage of silver. From April 1st to December 31st these profits amounted to $8,650,000, which will be applied to an increase of the gold reserve.

Other Metals.

Daily Prices of Metals in New York.

Mar.-Apr.	Sterling Exchange.	Silver. Fine oz. Cts.	Silver. London. Pence.	Copper. Lake. cts. ₩ lb.	Copper. Electrolytic ₩ lb.	Copper. London £ ₩ ton.	Tin. cts. ₩ lb.	Lead cts. ₩ lb.	Spelter. N. Y. cts. ₩ lb.	Spelter. St. L. cts. ₩ lb.
30	4.88	59⅝	27 5/16	16⅞ @17	16.35 @16.45	....	26	4.32½ @4.37½	3.90	3.75
1	4.88	59⅛	27 3/16	16⅞ @17	16.35 @16.45	60½	26	4.32½ @4.37½	3.92½	3.75
2	4.88¼	59	27⅛	16⅞ @17	16.35 @16.45	63⅝	25¾	4.32½ @4.37½	3.95	3.80
3	4.88¼	58⅝	26 15/16	16⅞ @17	16 35 @16.45	63⅝	25⅛	4.32½ @4.37½	4.00	3.82½ @3.85
4	4.88⅛	58⅛	26⅛	16⅞ @17	16.35 @16.45	63¾	25¾	4.32½ @4.37½	4.00	3.82½ @3.85
5	4.88	58¼	....	16⅞ @17	16.35 @16.45	....	26	4.32½ @4.37½	4.00	3.85

London quotations are per long ton (2,240 lbs.) standard copper, which is now the equivalent of the former g. m. b's. The New York quotations for electrolytic copper are for cakes, ingots or wirebars; the price of electrolytic cathodes is usually 0.25c. lower than these figures.

Copper has ruled very quiet indeed throughout the week, and the market is without any special feature. Transactions have been few and far between, especially, for Lake, which is quoted nominally at 16⅞@17c. However, producers are not pressing on the market, preferring to hold their copper until after opening of navigation, which will take place in a few weeks, and which will effect quite a saving in freight to them. Quotations for electrolytic are unchanged at 16.35 @16.45c. for cakes, wirebars and ingots, 16.10@16.20c. in cathodes. Casting copper is neglected at 16⅜c.

In Europe the market has assumed more or less of a holiday appearance, the Exchanges being closed from Thursday afternoon until next Tuesday. The market for standard copper, which closed last week at £69 7s. 6d., opened on Monday at £69 2s. 6d., declined 10s. on Tuesday and Wednesday, and the closing quotations are cabled as £68 15s.@£68 17s. 6d. for spot, £69 5s.@£69 7s. 6d. for three months.

Statistics for the second half of March show an increase in the visible supplies of 1,000 tons.

Refined and manufactured sorts we quote: English tough, £73 5s.@£74 5s.; best selected, £75 5s.@£75 15s.; strong sheets, £84@£84 2s. 6d.; India sheets, £81@£87 2s. 6d.; yellow metal, 6½d.

Tin has again had a declining tendency, but the demand on the part of consumers continues fair, and transactions have been quite numerous. At the close we quote Straits for prompt shipment at 25¾@26c.; May at 25¼@25½c.

The foreign market opened on Monday at £114 2s. 6d., declined on Wednesday to £113 5s., but rallied again and the closing quotations are cabled as £114 10s.@£114 12s. 6d. for spot, £112 10s.@£112 12s. 6d. for three months.

Statistics for the month of March show an increase in the visible supplies of 300 tons.

Imports of tin into the United States for two months ending February 28th are reported by the Bureau of Statistics as follows: East Indies, 5,458,984 lbs.; Australasia, 206,804; Great Britain, 7,116,630; Holland, 103,392; other countries, 49,276; total, 12,935,086 lbs. The total for the corresponding period in 1900 was 10,807,277 lbs., showing an increase of 2,127,809 lbs., or 19.7%, this year.

The visible supplies of tin on April 1st are reported as follows, in long tons, of 2,240 lbs.:

	Store.	Afloat.	Totals.
London	6,456	2,107	8,563
Holland	2,569	638	3,207
U. S., exc. Pacific ports	2,873	3,419	6,292
Totals	11,898	6,164	18,062

This is an increase of 501 tons over April 1st, 1900.

Exports of tin from the Straits in March were 3,900 long tons, a decrease of 275 tons as compared with March, 1900.

Lead continues quiet and nothing of interest has transpired. The ruling quotations are unchanged at 4.20@4.32½c. St. Louis, 4.32½@4.37½c. New York.

The foreign market is again very weak, the quotations being cabled as £12 12s. 6d.@£12 15s. for Spanish lead, £12 15s.@£12 17s. 6d. for English lead.

Imports of lead into the United States in all forms and exports of foreign lead refined here in bond, for the two months ending February 28th, are reported by the Bureau of Statistics as below. The figures are in short tons, of 2,000 lbs.:

	1900.	1901.	Changes.
Lead, metallic	13	93	I. 80
Lead in ores and base bullion	14,433	26,139	I. 11,706
Total imports	14,446	26,232	I. 11,786
Re-exports	11,633	18,571	I. 6,938
Excess, imports	2,813	7,661	I. 4,848

Of the lead in ores and base bullion imported this year, 14,487 tons, or 55.7%, came from Mexico, and 9,734 tons, or 37.4%, from Canada. In addition to the foreign lead re-exported there were 633 tons of domestic lead exported this year, against 50 tons last year.

St. Louis Lead Market.—The John Wahl Commission Company telegraphs us as follows: Lead is quiet. Chemical and Missouri are quoted at 4.22½c. and desilverized at 4.32½c. Trading is very light.

Spelter.—Owing to some speculative buying at the beginning of the week, the market assumed a firmer aspect, but settled back into dullness, as consumers seem to be well covered for some time to come. The closing quotations are 3.82½@3.85c. St. Louis, 4c. New York.

The foreign market seems weak, good ordinaries having declined to £16 5s. and specials to £16 10s.

Exports of spelter, or metallic zinc, from the United States for the two months ending February 28th were 2,950,981 lbs., which compares with 3,893,004 lbs. for the corresponding period of 1900; showing a decrease of 942,023 lbs., or 24.2%, this year. Exports of zinc ore for the two months were 7,171 tons, against 4,267 tons in 1900; an increase of 2,904 tons, or 68.1%, this year.

Antimony has been quite active. We quote Cookson's at 10½c.; Hallett's at 9c.; Italian, Japanese, Hungarian and United States at 8¾@8⅞. These prices are understood to be for cask lots; larger quantities can be had cheaper.

Imports of antimony into the United States for the two months ending February 28th are reported by the Bureau of Statistics as below, in pounds:

	1900.	1901.	Changes.
Metal or regulus	484,215	739,726	I. 255.511
Ore	779,700	265,280	D. 514,420

The increase in metal and regulus was large, while the decrease in imports of ore was also large.

Nickel.—The price continues firm at 50@60c. per lb., according to size and terms of orders.

Exports of nickel, nickel oxide and matte from the United States for the two months ending February 28th are reported by the Bureau of Statistics at 913,947 lbs., against 592,071 lbs. for the corresponding period last year; showing an increase of 321,876 lbs., or 54.4%, this year.

Platinum.—Consumption continues good and prices are strong. For ingot platinum in large quantities $18.20 per Troy oz. is quoted in New York. In London a recent quotation gives 75s. per ounce, unmanufactured, and 77s. 6d.@80s. for crucibles, etc. This is very nearly on a parity with New York prices.

Chemical ware (crucibles and dishes), best hammered metal from store in large quantities, is worth 72c. per gram.

Imports of platinum into the United States for the two months ending February 28th were 1,189 lbs., against 1,520 lbs. in the corresponding period in 1900; a decrease of 331 lbs., or 21.8%, this year.

Quicksilver.—The nominal quotation continues $51 in New York, but metal can be had for $48.75 @$50 in large lots, with a slightly higher rate named for large orders. San Francisco quotations continue the same as last week, $47@$47.50 per flask for domestic orders, and $42.50@$43 for export. The London price is £9 2s. 6d. per flask, with the same price named from second hands.

Exports of quicksilver from all United States ports for the two months ending February 28th are reported by the Bureau of Statistics at 146,720 lbs., which compares with 236,368 lbs. for the corresponding period in 1900; showing a decrease of 89,648 lbs., or 38%, this year.

Minor Metals and Alloys.—Wholesale prices, f. o. b. works, are as follows:

Aluminum.	Per lb.		Per lb
No. 1, 99% ingots	33@37c.	Ferro-Titanium (25%)	$1.00
No. 2, 90% ingots	31@34c.	Ferro tungsten (37%)	22c.
Rolled sheets	42c. up	Magnesium	$2.75@$3
Alum.-bronze	20@23c.	Manganese (over 99%)	$1.00
Nickel-alum	33@39c	Mangan'e Cop (20% Mn)	32c.
Bismuth	$2.25	Mangan s Cop (30% Mn)	38c.
Chromium (over 99%)	1.00	Molybdenum (Best)	$1.45
Copper red oxide	50c.	Phosphorus	50c.
Ferro-Molyb'um (50%)	$1.00	American	70c.
Ferro-Titanium (10%)	90c.	Tungsten (Best)	78c.

Variations in prices depend chiefly on the size of the order.

LATE NEWS.

The Consolidation Coal Company, of Maryland, has been awarded the contract to supply the new United States naval coaling station at Yokohama, Japan. The transport "Alexander" will be loaded at Baltimore at once with 5,500 tons to begin this contract.

A dispatch from Buffalo, N. Y., April 4th, says: "Jacob Dold, Christian Klinck, Nathan Wolf and other business men of this city have organized an independent salt company to be known as the Western New York Salt Company, to be capitalized at $100,000. The plant of the company is to be located at Leroy, where the company has secured more than 200 acres of salt lands."

SLATE TRADE REVIEW.

New York. Apr. 5.

The list of prices per square for No. 1 slate standard brand f. o. b. at quarries in car-load lots, is given below:

Size, Inches	Monson or Br'nville.	Bangor.	Bangor Ribbon.	Alb'n, or Jackson Bangor.	Chap'n Keyst'ne	Peach Bottom.	Sea Gr'n.	Unfad'g Green.	Red
	$	$	$	$	$	$	$	$	$
24 x 14	6.50	3.50	3.00	3.00	....	5.10	3.00	....	.....
24 x 12	6.60	3.50	3.00	3.00	3.80	5.25	3.00	3.75	.....
22 x 12	6.60	3.50	3.25	3.00	....	5.25	3.00	3.75	.....
22 x 11	6.50	3.75	3.25	3.00	4.00	5.25	3.00	4.00	.....
20 x 12	6 90	3.75	.....	3 00	....	5.25	3.00	3.75	.....
20 x 11	6.80	.....	.....	3.25	....	5.25	3.00	....	.....
20 x 10	6.80	4.25	3.50	3.25	4.00	5.35	3.00	4.25	10.50
18 x 12	6.80	3.75	.....	3.00	.....	5.25	3.00	3.50	.....
18 x 11	7.00	....	.....	.....	.....	....	3.00	3.75	.....
18 x 10	7.00	4.25	3.50	3.25	4.00	5.35	3.00	4.00	10.50
18 x 9	7.00	4.50	3.50	3.25	4.00	5.35	3.00	4.25	10.50
16 x 12	6.80	3.75	...	3.00	.....	.....	2.90	3.50	....
16 x 10	7.00	4.00	3.50	3.25	4.00	5 25	2.90	4.00	10.50
16 x 9	7.00	4.25	.....	3 25	4 00	5.35	2.90	4.25	10.50
16 x 8	7.00	4 50	3.50	3.25	4.25	5.35	2.90	4.25	10.50
14 x 10	6 60	3.75	3.25	3.00	.....	5 25	2.70	3.75	10.50
14 x 9	6.50	....	.....	.....	.....	....	2.70	3 75	10.50
14 x 8	6 60	3.75	3.25	3.00	4.00	5.10	2.70	4.25	10.50
14 x 7	6.40	3.75	3.25	3.00	3.75	5.10	2.50	4.25	10.50
12 x 10	5.75	....	... .	....	.. .	...	2.50	3.25	....
12 x 9	5.60	.....	.....	.....	... .	....	2.50	3.25	.....
12 x 8	5.50	3.50	.....	2.85	.....	4 85	2.50	3.50	9.00
12 x 7	5.00	3 25	.....	2.85	3 25	4.85	2.00	3.50	9.00
12 x 6	4.80	3 25	. .	2 85	3 25	4.75	2.00	3 50	8.50

A square of slate is 100 sq. ft. as laid on the roof.

Roofing slate and blackboards are moving more freely. Quarries are opening up, and active work will soon be seen in nearly all localities.

The exports from the United States in the two months ending February 28th were valued at $139,455, showing a decrease of $4,150 as compared with last year. The movement of roofing slate in 1901 is calculated at 30,827 squares, valued at $127,960, against 26,213 squares valued at $132,415 in the two months last year, principally for Great Britain, Germany and Australia. Mill stock is not finding as good a market as last year, consequently we find a decrease in exports. British orders for American roofing slate are being received spasmodically, and recently bids were asked for 4,730 squares. by a Manchester firm, to be delivered in six months. Efforts are being made to create an export trade for Newfoundland slate. So far this year at least two consignments have been made to England and it is said the slate, which is colored and unfading, is satisfactory. A syndicate, which includes some Granville, N. Y., people, is working the quarries at Smith Sound, Newfoundland, and their production this year is roughly estimated at 4,000 tons.

No change in the strike at Lord Penrhyn's quarries in Wales. The shipments of slate from Carnarvon in January were 6,065 tons, as against 4,273 tons last year. In the 3 months ending January 31st the shipments were 21,645 tons, or 737 tons greater than a year ago.

MINING STOCKS.

Complete quotations will be found on pages 450 and 451 of mining stocks listed and dealt in at:

Boston.	Salt Lake.	Montreal.
Colo. Springs.	San Francisco.	London.
Denver.	Spokane.	Mexico.
New York.	St. Louis.	Mexico.
Philadelphia.	Toronto.	Paris.

New York. Apr. 5.

With few exceptions speculators are devoting their entire attention to the industrial group, hence trading in mining stocks is uninteresting. The coppers, through inside support, gained in price, and trading was led by Amalgamated, which sold at $99⅞@$102½. Anaconda did not fluctuate as widely, nor were its sales as large, the extreme quotations being $47 and $45¾. Tennessee Copper was active and strong, selling on curb at $21¼@$23¾, the highest prices this year. It is rumored that Tennessee is to be listed on the Boston Exchange. Union, of North Carolina, received new life on curb, selling up to $5.25.

Larger sales of Ontario of Utah are reported at $9.50@$10.50. As fully 3,300 shares were sold since March 1st—a little over a month—which is over one-half the total transactions in the year 1900, it is believed that a certain inside interest has been a large seller. Here it may be conjectured that the lower price of silver is responsible for this selling. As our readers will remember, the Ontario mill was closed down in 1897 and 1898 when silver sold around 50c. per oz. The superintendent then claimed that silver could not be produced by mills from dry ores with the price at 60c. or under. To-day the market price is 60c. We may add that Ontario paid in dividends to April, 1900, a total of $13,662,500, which is equal to 91% on its capital stock of $15,000,000, which is a good showing. Horn Silver, of Utah, made a sale at $1.20.

Standard Consolidated of California holds firm at $4.20@$4.25 on sales. Larger sales of Brunswick are noted at 25c.

Portland, of Cripple Creek, is strong at $3, and sales of Isabella were made at 70@71c.; Iron Silver at 64c., and Breece at $1.50.

Consolidated California & Virginia on the Comstock Lode advanced to $2.20, as it is said that a better class of ore is being mined.

American Smelting and Refining shares showed larger trading as a result of the injunction suit. On Saturday last sales of 31,600 shares of common stock broke the price from $54¼ to $51¾. Later, when Wall Street heard of the proposed formation of a new company to take over the American Smelting and Guggenheim plants, the stock strengthened, common selling up to $56¾ and the preferred at $95⅝.

Trading in the United States Steel Corporation shares were extraordinarily large on 'Change and prices were high. On curb the Lake Superior Consolidated Iron Mines—which will be taken into the big steel combination at $135 for preferred and $135 common for $100 par value of present stock—sold up to $190, an advance of over 10 points since Saturday last.

Boston. Apr. 4.

(From Our Special Correspondent.)

The market has been a broad and active one this week as a rule, but speculation has run rather to industrials than to mining stocks. The copper trading has again been rather repressed, and prices have been softer. On several stocks, Franklin being the most conspicuous, little raids were made with success. To depress the coppers free use was made of lower London prices and small exports—to which were added dismal prophecies of falling consumption and the rest. On the other hand, it is said that the Calumet & Hecla Company has raised its selling price ⅛c. a pound; though it will have practically no copper to sell until lake navigation opens.

The reaction has been more marked to-day, and there was a general decline of one or two points all around. In the Lake coppers, Calumet & Hecla was quoted at $820; Osceola, $84; Wolverine, $50; Copper Range, $50; Baltic, $41; Isle Royale, $42½; Franklin, $18½. Boston & Montana was weaker at $353, while Butte & Boston sold at $98. In the outside coppers Utah brought $33 and Old Dominion $35.

In the gold stocks Cochiti sold down to $7@$7½, while Centennial-Eureka was quoted at $32. The reports of an arrangement between the last-named company and United States Mining are generally accepted.

In the outside list Dominion Coal was steady at $38, and New England Gas and Coke at $12.

Dealings in industrials, especially in United States Steel, have been very active, a large business being transacted.

Trinity Copper was brought forward this week and sales were made around $28. There is too general a belief in inside trading in this stock, and it does not seem popular.

At the Butte & Boston annual meeting this week only routine business was transacted, and nothing was said about the rumored consolidation with Boston & Montana.

Boston is represented in the directory of the United States Steel Corporation by Francis H. Peabody, of Kidder, Peabody & Company, and Nathaniel Thayer. Both gentlemen are financiers and not iron men.

The Calumet & Hecla dividend was rather a disappointment, only $15 being paid; most people expected $20. This is the fourth dividend for the company's fiscal year, which ends April 30th, and makes $65 for the year, against $80 for the preceding year. The total division for the year is 260% on the par value of the stock, or about 7¾% on the present selling price.

San Francisco. Mar. 30.

(From Our Special Correspondent.)

There has been some life in the market this week, though the turns were small and actual business was not heavy. Still, it is good to see a moderate degree of activity. Prices close rather strong.

Some quotations are: Consolidated California & Virginia, $2.25; Ophir, 78c.; Confidence, 72c.; Mexican, 38c.; Sierra Nevada, 36c.; Best & Belcher, 27c.; Gould & Curry, 16c.

The William Tell Gold Mining Company, of Sierra County, has levied an assessment of 1 mill per share, delinquent April 13th. This is one of the smallest assessments ever levied.

On the Producers' Oil Exchange sales were fair only, such non-dividend stocks as Petroleum Center and Reed Crude being in demand. Some prices noted are: Hanford, $90; San Joaquin, $9.75; Kern, $7.75; Home, $3.90; Monte Cristo, $2.40; Reed Crude, 57c.; California Standard, 45c.; Petroleum Center, 19c.

On the San Francisco Oil Exchange trading was good, especially in the lower-priced stocks. Monarch, Lion and Monte Cristo were favorites. A new stock—the Maine State Oil Company—made its appearance and sold well.

The Elko Coal Company has been organized to buy and develop coal lands in Nevada, Utah and Wyoming. It is said that it will work with the special intention of working up trade on the Pacific Coast.

London. Mar. 20.

(From Our Special Correspondent.)

The South African section of the mining market has been in an expectant state all this week owing to the hope that peace negotiations would be concluded between Kitchener and Botha, and a good deal of buying took place, chiefly on Continental account. At the time of writing, the official news has arrived that the negotiations have fallen through and that the war has to go on to the bitter end, so that for the moment the market is very dull. During the week it was announced that several of the mines on the Rand were to start work without further delay, and this was also a help to the market. On the other hand, the threatened conflict between Russia and England in Tientsin depressed the South African section and all other sections of the mining market. The publication of the figures of the output of the Rhodesian mines was a cheerful feature of the market, but did not have any effect on quotations. The figures were over 11,000 oz., slightly higher than any previous month, and as it was February, the relative importance of the figures was greater than if it was an ordinary month.

The only new company introduced to the public this week is a Rhodesian one, called the Sabiwa Proprietary Mines, Limited. This company was not advertised in the press, but the prospectus has been circulated liberally. It has been promoted by the Rice-Hamilton group, to take over a large number of claims in the Gwanda District of Matabeleland. There appears to be a well-defined vein of considerable width and running from $10 to $15 per ton, but in no part does there seem to be any exceptionally rich ore. The capital is £400,000, which is, as usual, much too high considering the small amount of development done.

The market in West Africans is very dull at present, and little is being done in the shares of the various companies or in arranging for new flotations. The frankness of Mr. Chamberlain's recent letter has pricked the bubble for the present and the public have been given far too much information concerning difficulties of mining in that district to please the promoters. The American section has been cheered a little by the cables from Stratton's Independence, where Mr. Hammond reports discoveries of ore in the upper levels sufficient to provide an extra $250,000 profit for the current year. The quotation of the shares has therefore stiffened up considerably and now stands at £1¾. The continued hitch in the negotiations for a reconstruction of the London & Globe Corporation is still a heavy weight on the market and I now hear that Mr. Whitaker Wright has asked the creditors to wait two months more.

The copper mine share market received an unexpected setback by the announcement of a dividend by the Rio Tinto that was slightly less than had been anticipated by the market. It was expected that the balance dividend for the year would be £2½ per share, but only £2¼ has been declared. The total dividend for the year, therefore, amounts to £4¼ per share as against £4 last year. As the par value of the shares is £5, the rate of the dividend is 85%. The shares now stand on the market at £58, though a week or so ago before the dividend announcement they were as high as £61.

Paris. Mar. 24.

(From Our Special Correspondent.)

The Bourse is in an uneasy condition, and speculation is not active. The accumulation of money is very great; but the disposition to use it freely is lacking. In other words, confidence in the future is not apparent.

The failure of the peace negotiations with Gen. Botha does not seem to have affected the South African gold stocks, in which there is some movement apparent. The authorization to a few of the companies to begin work is looked upon as a good sign.

In the copper stocks Rio Tintos have weakened a little on the announcement that the dividend for the second half of 1900 will be 45%, and not 50% as had been hoped. The course seems a prudent one, but the main point is that the Berlin clique is no longer supporting the rise. Other copper shares have shown little movement.

The metallurgical shares are still uncertain, but their evident tendency is downward.

The lead and zinc shares are generally weak. In this department the sensation is Malfidano, which has fallen 235 fr. in less than two weeks. The break was due to the announcement—made unexpectedly—of a heavy reduction in dividend, from 50 fr. last year probably to 12.50 fr. now.

The reasons given are heavy development expenses at the mines and the cost of establishing the new Noyelles-Godault Works. These are hardly sufficient, and one suspects a want of careful management, and a failure to maintain the reserves which such a company should possess. It is also said that last year development at the mines was neglected, which is inexcusable.

The movement of gold and silver in France for the month of January is reported by the Ministry of Commerce as below:

	Imports.	Exports.	Excess.
Gold:			
1901	Fr. 39,860,000	Fr. 741,000	Imp. Fr. 39,119,000
1900	42,589,000	10,743,000	Imp. 31,846,000
Silver:			
1901	6,947,000	11,297,000	Exp. 4,350,000
1900	12,390,000	12,812,000	Exp. 442,000

Imports of copper and nickel coins, rated at their face or coinage values, were 8,000 fr. this year and 2,000 fr. in 1900. Exports of these coins were 24,000 fr. in January, 1901, against 5,000 fr. last year.

The Paris Gas Company will propose at its annual meeting of shareholders to complete a dividend of 61 fr. per share for 1900, against 59 fr. paid the previous year. As the shares are 250 fr. par value, the dividend is 24.4%. The profits for the year amounted to 30,300,000 fr. A first appropriation of 11,200,000 fr. is made to shareholders under the contract with the municipality, the balance of 19,100,000 fr. being shared in equal portions between the City of Paris and the shareholders. In addition to the 9,550,000 fr. taken by the City, the municipal taxes amounted on the year to 7,576,763 fr., making a total of 17,126,763 fr. received by the City from the gas monopoly. The concession expires in 1905, and, though negotiations between the company and the Municipal Council have been going on for some time, no arrangement has been yet come to for the service after the expiration of the concession.

The Tariff Committee of the Chamber of Deputies proposes to levy a duty of 60 fr. per 100 on incandescent mantles for gas lights. Hitherto these, which are made chiefly in Germany, have been free from duty.

Certain of our writers here persist in regarding the great consolidation effected by the United States Steel Corporation as a menace to Europe. The object of the new trust, they say, is to flood Europe with cheap steel in all forms; to undersell our ironmasters everywhere. If not, why such a colossal organization? This view seems to have been dropped in England, but our prophets here see nothing but American domination in the future, if we do not take active measures. "The only salvation for Europe," cries one of these fanatics, "is the destruction of American industries."

"Delenda est Carthago!" America must be destroyed! But how? Our prophets do not tell us that; nor are they agreed as to the first step, even.

Perhaps they do not know. Azote.

DIVIDENDS.

Name of Company	Latest Dividend. Date.	Per share.	Total.	Total to date.
Adams, Colo	Apr. 15	$0.05	$ 7,500	$ 708,500
†Amalgam. Copper	Apr. 29	1.50	1,125,000	10,500,000
Amal Copper, extra.	Apr. 29	.50	375,000	.....
†Am. Sheet Steel, pf.	Apr. 15	1.75	428,750	857,500
†Am. Sm. & Ref, pf	Apr. 9	1.75	479,50	3,641,553
§Anaconda Copper	Apr. 26	1.25	1 500,000	19,350,000
Anaconda Copper, ex	Apr. 26	.75	900,000	.....
Bankers, Colo	Apr. 5	.15	187,500	187,500
†Calumet & Hecla	Apr. 22	15.00	1,500,000	74,350,000
*Croesus, Cal	Apr. 1	.06	12,000	187,300
†Crucible Steel, pf	Mar. 30	1.75	426,991	833,982
*Empire State, Idaho	Apr. 15	.10	50,554	855,905
†Federal Steel, pf.	Apr. 20	1.50	798,914	8,255,482
Garfield, Colo	Apr. 5	.10	125,000	159,000
Gwin, Cal	Mar. 19	15	15,000	191,500
*Helena, Ore	Mar. 25	.00½	5,000	65,000
*Ingham, Colo	Mar. 28	.00¼	3,399	13,596
†Mont. Ore Purch.	Apr. 27	1.00	80,000	2,080,000
Mont. Ore Purch., ex.	Apr. 27	2 00	160,000	.....
†National Steel, pf.	Mar. 30	1.75	472,500	3,780,000
†Parrot, Mont	Apr. 29	1.50	314,775	5,083,375
§Penn a. Salt Mfg.	Apr. 15	3.00	150,000	12,700,000
†Penna. Steel, pf	Apr. 15	1.75	26,250	183,750
†Pittsburg Coal, pf.	Apr. 25	1.75	560,000	3 360,000
†Tenn. C., I. & R.R. pf.	May 1	2.00	4,930	252,960
†Texas & Pacific Coal	Apr. 26	1 50	30,000	1,860,000
United States Marble.	Apr. 15	.00¼	5,000	8,750
†United Zinc, pf	Apr. 15	.50	7,469	45,201
†Virg. Caro. Chem. pf.	Apr. 15	2.00	200,000	1,600,000

*Monthly. †Quarterly. §Semi-Annual.

ASSESSMENTS.

Name of Company.	Location.	No	Delinq.	Sale.	Amt.
Alliance	Cal.	3	Mar. 18	Apr. 8	.02
Belcher	Nev.	68	Apr. 9	Apr. 30	.10
Bogan	Utah	6	Apr. 26	May 21	.10
Bullion	Nev	58	Apr. 22	May 13	.03
Centennial	Mich	...	Apr. 12	...	2.00
Chollar	Nev.	54	Mar. 18	Apr. 9	.10
Crown Point	Nev.	82	Apr 23	May 14	.10
Daylight	Utah	1	Apr. 22	May 14	.00½
Diamond Con	Utah	2	Apr. 8	Apr. 25	.04
Gould & Curry	Nev.	94	Apr. 8	Apr. 29	.10
Joe Bowers	Utah	..	Apr. 29	..	.02
Justice	Nev.	71	Apr. 23	May 13	.05
Larkin	Cal.	10	Apr. 20	.....	.02
Lucky Bill	Utah	32	Apr. 27	May 21	.10
Mariposa Com'l & Mg.	Cal.	21	Apr. 11	....	10.00
McKinley	Utah	...	Mar. 18	Apr. 13	.00½
Melcher	Utah	3	Apr. 9	Apr. 24	.00¼
Mexican	Nev.	66	Mar. 2	Apr. 15	.15
Old Susan	Utah	...	Apr. 13	.....	.00½
Ophir	Nev.	80	Apr. 22	May 13	.15
Overman	Nev.	7	Apr. 10	Apr. 30	.05
R. G. W	Utah	...	Mar 27	Apr. 16	.00½
Sailor Con	Cal.	9	Apr. 15	May 9	.01
Seg. Belch. & Mides.	Nev.	27	Apr. 3	Apr. 23	.03
Shoebridge Bonanza.	Utah	8	Apr. 9	Apr. 30	.01
Snow Flake	Utah	19	Apr. 15	May 1	.01
Snowstorm	Utah	1	Apr. 15	May 15	.00½
Sonora	Cal.	...	Mar. 30	Apr. 12	.02
Spanish Con	Cal.	4	Mar. 19	Apr. 8	.05
Tetro	Utah	18	Apr. 12	May 4	.01½
.....	.....	...	.....	.....	.....

ANNUAL MEETINGS.

Name of Co.	Locat'n.	Date.	Place of Meeting.
*Alice	Wash	April 15	Spokane, Wash.
Anchoria-Le'a'd	Colo	May 15	Colo Springs, Colo.
Ben Butler	Utah	April 8	Salt Lake City Utah.
Champion	Cal	April 13	San Francisco, Cal.
Columbia Lead.	Mo	April 13	St. Louis, Mo.
*Copper Queen	Ariz	April 9	99 John St., N. Y.
Franklin	Mich	April 18	19 Congress St, Boston
Goleta	Cal	May 18	San Francisco, Cal.
Gwin	Cal	April 16	San Francisco, Cal.
*Homestake	Utah	April 18	Salt Lake City, Utah.
Iron Silver	Colo.	May 1	30 Broad St., N Y.
Justice	Nev.	May 7	San Francisco, Cal.
Little Bell	Utah	April 16	Salt Lake City, Utah.
Sacramento	Utah	April 10	Salt Lake City, Utah.
Tamarack	Mich	May 3	Boston, Mass.
*Tintic	Utah	April 24	50 Broadway, N. Y.

*Special Meeting.

STOCK QUOTATIONS.

NEW YORK.

Name of Company.	Location.	Par val.	Mar. 29. H.	Mar. 29. L.	Mar. 30. H.	Mar. 30. L.	Apr. 1. H.	Apr. 1. L.	Apr. 2. H.	Apr. 2. L.	Apr. 3. H.	Apr. 3. L.	Apr. 4. H.	Apr. 4. L.	Sales
Alamo	Colo.	1	.....	.....	.....	.....	.....	.....	.12½	.....	.....	.....	.....	.....	500
Amalgamated c.	Mont.	100	101	99.50	100¾	99.75	101	99.88	102½	100	102½	100¾	109¾	.....	246900
Anaconda, c	Mont.	25	45.75	45.13	45.63	45.50	45.13	45.75	47.00	45.75	46.25	45.75	47.63	.....	18,595
Anaconda Gold.	Colo.	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Argentum-Jun.	Colo.	2	.....	.....	.....	.....	.23	.....	.21	.....	.24	.....	.....	.....	1,000
Belcher	Nev.	3	.10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	500
Breece	Colo.	25	.....	.....	.....	.....	1 50	.....	.....	.....	.....	.....	.....	.....	120
British Col. Cop.	B. C.	5	20.13	20.00	20.25	20.00	20.25	20.00	19.63	19.25	19.00	18.75	19.00	18.50	.....
Brunswick Cons.	Cal.	1	.27	.....	.27	.....	.....	.....	.25	.....	.25	.....	.....	.....	2,400
Chrysolite	Colo.	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Comstock T.	Nev.	100	.08	.07	.08	.....	.01½	.07	.07	.....	.07	.....	.....	.....	11,000
Con. Cal. & Va.	Nev.	2½	2.20	.....	2.30	.....	2.20	.....	2.20	.....	.....	.....	.....	.....	900
Cripple Cr. Con	Colo.	3	.....	.....	.....	.....	.....	.....	.....	.....	.12	.....	.....	.....	1,000
Daly	Colo.	20	1.30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	50
Elkton Con	Colo.	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gold Dollar	Colo.	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Golden Fleece	Colo.	1	.....	.....	.....	.....	.33	.....	.34	.33	.33	.....	.....	.....	1,400
Homestake	S. Dak	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Horn Silver	Utah.	20	.....	.....	1.10	.....	.....	.....	1.30	.....	.....	.....	.....	.....	150
Iron Silver	Colo.	20	.....	.....	.....	.....	.....	.....	.....	.....	.64	.....	.....	.....	100
Isabella	Colo.	1	.70	.....	.....	.....	.70	.....	.....	.....	.71	.....	.....	.....	700
LaCrosse	Colo.	10	.....	.....	.....	.....	.10	.....	.....	.....	.....	.....	.....	.....	200
Leadville	Colo.	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Little Chief	Colo.	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mexican	Nev.	3	.....	.....	.....	.....	.38	.....	.....	.....	.....	.....	.....	.....	200
Mollie Gibson	Colo.	5	.....	.....	.....	.....	.....	.....	.24	.....	.....	.....	.....	.....	200
Ontario	Utah.	100	9.50	.....	9.25	.....	10.00	9.50	10.00	9.50	10.00	.....	.....	.....	1,090
Ophir	Nev.	3	.....	.....	.83	.....	.....	.....	.....	.....	.68	.....	.....	.....	800
Pharmacist	Colo.	1	.12	.....	.13	.12	.12	.....	.13	.....	.....	.....	.....	.....	2,000
Phoenix	Ariz.	1	.....	.....	.....	.....	.....	.....	.10	.....	.....	.....	.....	.....	800
Portland	Colo.	1	.....	.....	.....	.....	3.00	.....	3.00	.....	.....	.....	.....	.....	400
Potosi	Nev.	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quicksilver	Cal.	100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sierra Nevada	Nev.	3	.....	.....	.40	.....	.34	.....	.35	.....	.30	.....	.....	.....	1,200
Small Hopes	Colo.	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Standard Con	Cal.	10	.....	.....	.....	.....	4.25	4.20	4.25	.....	.....	.....	.....	.....	500
Tenn. Copper	Tenn.	25	25.50	19.00	20.00	19.00	15.00	14.00	23.50	23.13	24.00	23.63	25.00	24.75	5,300
Union Copper	N. C.	10	4⅝	4⅝	4¾	4⅝	4¾	4⅛	4¼	4¾	5⅛	5⅛	5¼	5¼	1,000
Yellow Jacket	Nev.	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

COAL AND INDUSTRIAL STOCKS.

Am. Sm. & Ref.	.....	$100	54¼	51⅜	55¼	53⅜	56⅜	54	55	54¼	55½	54⅛	56	.....	90,865
" " " pf	.....	100	95	92	95	94½	95⅜	93⅛	95	93¾	94	93½	93⅚	.....	21,740
Am.S. & W. Con	.....	100	46	44⅞	46½	46½	49⅛	47	49	48	49¼	49	48⅝	.....	4,235
" " " pf'rn	.....	100	111¾	110⅝	111⅝	110¾	112⅛	112	112⅝	111¾	112⅝	.....	112	.....	27,150
Col. Fuel & I.	Colo.	100	55⅞	54¼	55⅝	55⅛	58	55¼	65	58¼	65⅛	63⅞	74¾	.....	118840
Col. & H. C.& I.	"	100	.....	.....	.....	.....	19¾	17¼	20⅝	19¼	20	19	20½	.....	21,100
Federal Steel	.....	100	51⅜	50¼	52¼	52	55¼	52¾	55⅝	55	49⅝	48¾	50	.....	34,427
" " pf	.....	100	104½	103⅛	104⅜	104	105¼	104¾	105	104½	105⅜	105⅛	104	.....	10,203
Fleming'n C.&C	W.Va	100	9	8	9	8	9	8	10	8	10	8	9	8	.....
*Mong. R. Coal	Pa.	100	13½	13	13⅝	13	13⅝	13	13¾	13	.....	.....	.....	.....	10,109
" " " pf	"	100	45¾	.....	45⅞	45⅝	45½	.....	46	45⅝	.....	.....	.....	.....	615
National Lead	.....	100	15⅜	15⅜	16	.....	17	16½	17⅝	16⅜	.....	.....	16½	.....	3,700
" " pf	.....	100	83	.....	83	.....	83⅛	83¼	85	83¾	.....	.....	83½	.....	1.750
National Salt	.....	100	.....	.....	46	45½	45⅞	44⅞	45⅛	44½	45¼	44	45⅝	.....	5,850
" " pf	.....	100	78½	.....	79¼	79	79⅜	78½	75½	78	78	.....	77¾	.....	2,102
*Pittsburg Coal	Pa.	100	29¼	29⅛	29¼	29⅛	29⅜	29¼	29¼	29	.....	.....	.....	.....	13,126
" " " pf	"	100	95	94⅝	94⅞	94¾	95½	94¾	95	94¾	.....	.....	.....	.....	5,304
Republic I. & S.	.....	100	18¾	17⅜	19½	18½	22¼	19½	22¼	21⅛	21¾	20	20⅝	.....	77,127
" " pf	.....	100	74	71½	75¼	73¾	82	75½	80¼	76½	78	77	77¼	.....	32,282
Sloss-Shef	.....	100	35	34½	37	36	40¾	38	41½	39	41	38	37½	.....	6,200
" " pf	.....	100	79½	79	79¼	.....	84	82	85	84½	84	.....	83⅝	.....	1,739
Stan. Oil	.....	100	800	795	805	805	814	811	812	806	808	802	806	804	25
Tenn. C. I.&R.R	.....	100	58¼	57½	62½	58½	66⅛	63	66	64	66	64¼	64	.....	78,000
Va. Coal & C	Va.	100	4½	3½	4½	3½	4½	3¼	4½	3½	4¼	3½	.....	.....	.....

* On Pittsburg, Pa., Exchange. † Ex-Dividend. Total sales, 866,144.

SAN FRANCISCO, CAL.

Name of Company.	Location.	Par value.	Mar. 28.	Mar. 29.	Mar. 30.	Apr. 1.	Apr. 2.	Apr. 3.
Belcher	Nev.	$3.00	.09	.09	.09	.09	.08	.08
Best & Belcher	"	3.00	.28	.25	.21	.20	.18	.18
Caledonia	"	3.00	.77	.77	.76	.75	.72	.72
Challenge Con	"	3.00	.17	.16	.16	.17	.14	.15
Chollar	"	3.00	.15	.16	.14	.14	.13	.11
Confidence	"	3.00	.70	.72	.70	.72	.70	.70
Con. California & Virginia	"	2.50	2.80	2.45	2.05	2.05	1.50	1.85
Crown Point	"	3.00	.13	.12	.12	.12	.13	.12
Gould & Curry	"	3.00	.16	.17	.15	.13	.12	.13
Hale & Norcross	"	3.00	.14	.13	.13	.12	.11	.09
Justice	"	2.00	.08	.03	.03	.03	.03	.02
Mexican	"	3.00	.33	.36	.32	.32	.30	.31
Occidental Con	"	3.00	.06	.05	.05	.05	.05	.03
Ophir	"	3.00	.79	.83	.70	.72	.67	.67
Potosi	"	3.00	.14	.15	.15	.14	.13	.13
Savage	"	2.50	.14	.14	.12	.11	.10	.10
Sierra Nevada	"	3.00	.38	.35	.31	.31	.29	.29
Standard Con	Cal.	10.00	4.00	4.00	4.00	4.15	4.15	4.15
Union Con	Nev.	2.50	.22	.21	.18	.18	.16	.15
Utah Con	"	1.00	.06	.06	.06	.04	.04	.04
Yellow Jacket	"	3.00	.19	.19	.18	.16	.15	.15

CALIFORNIA OIL STOCKS.*

Name of Company.	No. of shares.	Par Val.	Mar. 19. H.	Mar. 19. L.	Mar. 21. H.	Mar. 21. L.	Mar. 22. H.	Mar. 22. L.	Mar 23. H.	Mar 23. L.	Mar. 24. H.	Mar. 24. L.	Mar. 25. H.	Mar. 25. L.	Sales
Blue Goose	5,000	$100	3.00	2.50	2.50	.....	2.50	2.00	2.50	.....	.....	.....	.....	.....	.....
Buckhorn	20,000	10.00	3.50	.....	3.50	.....	3.50	.....	.....	.....	.....	.....	.....	.....	100
Cal. Standard	500,000	1.00	.49	.48	.56	.52	.56	.50	.54	.52	.....	.....	.....	.....	23,300
Caribou	100,000	1.00	.56	.50	.60	.....	.74	.65	.61	.56	.....	.....	.....	.....	100
El Dorado	100,000	1.00	1.75	1.50	1.75	1.50	1.75	1.55	1.75	1.55	.....	.....	.....	.....	50
Four	300,000	1.00	.57	.55	.57	.55	.57	.55	.57	.56	.....	.....	.....	.....	3,100
Hanford	2,000	10.00	90.00	87.50	100	97.00	99.00	92.00	97.00	90.00	.....	.....	.....	.....	18
Hanf'd F. & K.	150,000	1.00	.20	.13	.19	.18	.20	.....	.22	.21	.....	.....	.....	.....	800
Home	100,000	1.00	4.10	4.00	4.00	3.95	4.00	3.95	4.00	3.95	.....	.....	.....	.....	1,360
Homestake	10,000	10.00	9.00	.....	9.00	.....	9.00	8.50	9.00	.....	.....	.....	.....	.....	.....
Independence	600,000	1.00	.20	.17	.19	.18	.19	.18	.19	.18	.....	.....	.....	.....	300
Kern	100,000	1.00	8.50	8.00	8.25	8.00	8.75	8.13	8.25	8.00	.....	.....	.....	.....	380
Kern River	20,000	5.00	16.50	15.00	16.50	16.00	16.00	14.00	16.50	.....	.....	.....	.....	.....	.....
McKittrick	60,000	1.00	.45	.40	.40	.35	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mo'arch of Ari	500,000	1.00	.49	.47	.60	.57	.57	.55	.57	.56	.....	.....	.....	.....	4,100
Monte Cristo	500,000	1.00	2.45	2.30	2.40	2.30	2.45	2.35	2.40	2.35	.....	.....	.....	.....	800
Oil City Petrol	5,000	100.	.22	.26	.31	.30	.31	.29	.29	.28	.....	.....	.....	.....	6,500
Petrol. Center	500,000	1.00	.13	.12	.14	.13	.14	.13	.14	.13	.....	.....	.....	.....	16,500
Queen Esther	100,000	1.00	.30	.15	.30	.28	.22	.....	.22	.....	.....	.....	.....	.....	.....
San Joaquin	100,000	1.00	11.00	10.25	12.25	12.00	12.25	11.75	12.25	.....	.....	.....	.....	.....	560
Sterling	250,000	1.00	2.50	2.13	2.45	2.40	2.40	2.33	2.35	2.25	.....	.....	.....	.....	.....
Sunset (Orig.)	100,000	5.00	.40	.....	.40	.35	.36	.....	.35	.....	.....	.....	.....	.....	.....
Twenty-eight	60,000	10.00	1.43	1.40	1.65	1.60	1.65	1.63	1.63	1.58	.....	.....	.....	.....	4,600
Yukon	100,000	2.50	.....	.....	.40	.39	.40	.36	.....	.....	.....	.....	.....	.....	.....

* Producers' Oil Exchange, San Francisco. Total sales, 68,168 shares.

ST. LOUIS, MO.*

Name.	Location.	Share capital.	Par val.	Apr. 2. Bid.	Apr. 2. Ask.	Name.	Location	Share capital.	Par val.	Apr. 2. Bid.	Apr. 2. Ask.
Am.-Nettie	Colo.	800,000	$10	$1.10	$1.20	Granite Bimetallic	Mt.	1000,000	$10	$2.45	$2.50
Catherine Lead.	Mo	50,000	10	6.00	6.50	Kan. & Tex. Coal.	Mo	25,000	100	50.00	55.00
Central Lead.	Mo	10,000	100	128.00	131.00	Renault Lead.	Mo	30,000	10	11.00	12.00
Columbia Lead.	Mo	50,000	10	14.00	14.50	St. Joe Lead.	Mo	800.000	10	14.00	14.75
Con. Coal	Ill.	50.000	100	14.50	15.00	.....	.....	.....	.....	.....	.....
Doe Run Lead.	Mo	10,000	100	125.00	130.00	.....	.....	.....	.....	.....	.....

* From our special correspondent.

STOCK QUOTATIONS.

BOSTON, MASS.†

NAME OF COMPANY.	Par val.	Shares issued.	Mar. 28. H.	Mar. 28. L.	Mar. 29. H.	Mar. 29. L.	Mar. 30. H.	Mar. 30. L.	Apr. 1. H.	Apr. 1. L.	Apr. 2. H.	Apr. 2. L.	Apr. 3. H.	Apr. 3. L.	Sales
Adventure Con..	$25	100,000	15.50	14.88	13.63	15.00	15.50	15.25	15.75	15.50	15.50	15.00	15.00	14.25	6,444
Aetna	5	100,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Allouez	25	80,000	3.25	3.00	2.00	.....	.....	.....	.....	.....	3.00	.....	.....	.....	720
Amal. Copper	100	750,000	100⅜	100	101	99.75	100	99.75	100⅜	99.75	102¼	100	102¼	100¼	10,658
Am. Z. L. & Sm.	25	60,000	.....	.....	.....	.....	9.00	.....	.....	.....	9.00	.....	.....	.....	150
Anaconda	25	1200,000	46.38	.....	45.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	210
Arcadian, c	25	150,000	22.00	.....	22.00	21.25	21.25	21.18	22.00	.....	22.00	21.00	21.00	.....	1,060
Arnold	25	60,000	3.75	.....	.....	.....	.....	.....	4.00	.....	.....	.....	3.75	.....	200
Atlantic, c	25	40,000	33.00	32.50	.....	.....	.....	.....	33.00	.....	.....	.....	.....	.....	390
Baltic, c	25	100,000	44.38	43.50	44.00	43.00	43.00	41.38	43.75	42.00	42.50	41.75	45.00	41.00	3,205
Bingham, c. g	10	190,000	24.75	24.25	24.50	24.25	25.00	24.75	25.50	25.00	25.25	24.50	25.00	23.50	3,354
Bonanza Dev	10	300,000	1.63	.....	1.63	1.50	.....	.....	1.75	1.63	1.50	.....	1.50	1.25	2 485
Boston	10	100,000	.....	.....	.....	.....	.....	.....	.....	.....	7.00	.....	.....	.....	100
Boston & Mont	25	150,000	353	350	353	351	351	350	355	352	358½	355	354	350	627
British Columbia	5	200,000	20.50	19.75	.....	.....	.....	.....	20.50	.....	20.50	19.50	20.00	19.00	745
Butte & Bost., c.	10	200,000	101	99.00	99.00	97.25	99.50	98.25	100⅛	98.50	102	98.50	98.00	95.00	6,034
Cal. & Hecla, c	25	100,000	850	848	*848	840	810	790	820	810	820	.....	825	815	352
Catalpa	10	300,000	.....	.....	.....	.....	.....	.....	22½	.....	.....	.....	.....	.....	1,000
Centennial, c	25	90,000	27.25	.....	27.00	26.50	26.50	26.13	26.75	.....	26.25	25.88	26.25	25.00	2,850
Cent'l-Eureka	25	100,000	33.00	32.50	32.25	32.00	33.50	32.00	34.75	33.50	34.00	33.25	34.00	31.50	3,967
Central Oil	25	60,050	12.00	11.00	12.00	11.50	12.25	12.00	13.00	.....	.....	.....	12.00	.....	1,631
Cochiti, g	10	175,000	9.50	8.75	9.00	8.50	8.50	.....	8.50	7.63	8.00	6.88	7.50	6.75	10 235
Copper Range	25	100,000	50.00	52.50	53.50	52.50	53.00	52.25	54.00	52.00	53.00	52.50	53.00	50.00	5,140
Daly-West	20	150,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dominion Coal	100	150,000	38.25	37.75	38.50	37.50	38.50	.....	39.00	38.50	38.50	38.00	38.00	.....	1,625
do. pref	100	30,000	110¼	.....	111	110¼	.....	.....	111¼	.....	.....	.....	111¼	.....	28
Elm River	12	100,000	5.50	.....	5.50	.....	.....	.....	5.75	.....	.....	.....	5.50	5.25	1,255
Franklin, c	25	100,000	22.00	21.00	21.50	21.00	23.25	21.00	21.50	20.00	20.25	18.00	19.50	18.00	6,400
I. Royal Con., c	25	100,000	43.50	42.50	42.50	42.00	43.25	42.00	43.50	43.00	43.75	43.25	43.50	42.75	2,805
Mass Con	25	100,000	16.50	16.00	16.50	16.13	16.50	16.50	17.00	16.75	17.25	16.75	17.00	15.63	3,500
Mayflower	25	100,000	2.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25
Merced	15	100,000	.....	.....	.....	.....	.....	.....	5.00	.....	.....	.....	.....	.....	110
Michigan	25	100,000	7.25	7.00	7.13	7.00	7.00	.....	7.00	.....	7.13	7.00	7.25	7.00	1,180
Mohawk, c	25	100,000	32.00	31.13	31.50	30.75	31.75	30.63	31.50	30.50	31.50	31.00	30.50	30.00	2,989
Mont. C. & C	25	200,000	.....	.....	.....	.....	6.50	6.00	.....	.....	.....	.....	.....	.....	200
N.E. Gas & Coke	100	100,000	12.00	.....	12.00	.....	.....	.....	12.50	12.00	12.50	12.25	12.00	.....	880
New Idria	5	100,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
N. A. G. Dreg	10	160,000	.50	.45	.40	.....	.....	.....	.....	.....	.....	.....	.....	.....	350
Old Colony	25	100,000	4.75	.....	4.50	4.25	.....	.....	4.50	.....	.....	.....	.....	.....	270
Old Dominion, c	25	150,000	35.25	34.63	36.75	34.75	35.25	34.50	36.25	35.50	35.75	35.00	35.00	33.50	8,070
Osceola, c	25	93,000	86.00	85.25	85.00	83.50	83.00	82.00	83.50	83.00	83.50	83.00	84.00	81.75	2,663
Parrot, s c	10	229,850	52.50	52.00	52.75	51.25	51.75	.....	52.50	52.00	52.75	52.00	52.50	49.75	4,395
Phoenix Con	25	100,000	4.88	4.50	4.88	.....	4.88	4.75	5.00	4.75	.....	.....	.....	.....	862
Quincy, c	25	100,000	.....	.....	176	.....	176	.....	178	177	179	.....	176	.....	315
Rhode Island	25	100,000	6.00	5.88	7.00	6.00	.....	.....	.....	.....	6.25	6.00	6.00	5.63	1,657
Santa Fe, g. c	10	250,000	8.50	8.25	8.50	8.25	8.50	8.25	8.50	.....	8.38	8.25	8.00	.....	3,589
San Ysabel	15	120,000	1.50	.....	1.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	100
Tamarack, c	25	60,000	340	.....	335	.....	330	325	331	330	335	.....	.....	.....	165
Tecumseh	25	80,000	.....	.....	1.75	.....	.....	.....	.....	.....	.....	.....	1.88	.....	150
Trimountain	25	100,000	37.50	37.00	37.25	37.00	36.25	36.00	36.50	36.00	36.50	36.00	36.25	35.00	1,952
Trinity	25	160,000	32.50	31.00	32.00	31.00	31.50	31.00	32.50	30.25	31.00	29.50	29.50	25.00	5,743
Union C. L	25	80 000	.....	.....	4.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	25
UnitedStatesMg.	25	250,000	19.38	18.50	18.63	18.13	18.38	18.00	20.13	19.00	19.75	18.75	19.38	18.38	24.337
U. S. Oil	25	100,000	16.00	15.00	16.00	.....	16.00	.....	15.50	.....	15.50	15.00	15.00	14.75	2,153
Utah Con., g. c	5	900,000	34.00	33.00	33.75	33.00	34.00	33.50	34.50	33.50	34.00	33.25	33.75	33.00	5,165
Victoria	25	100,000	4.50	4.25	4.00	.....	3.75	.....	3.63	.....	3.75	.....	4.00	.....	790
Washington	25	60,000	.50	.....	.....	.....	.50	.....	.25	.....	.25	.20	.25	.....	770
Winona, c	25	100,000	5.25	4.50	4.75	4.00	5.00	4.50	5.00	4.88	5.00	4.25	4.75	.....	5,911
Wolverine c	25	60,000	51.75	51.00	51.00	50.00	50.50	50.25	51.50	50.75	51.00	50.13	51.00	50.00	1,736
Wyandot	25	100,000	2.00	1.38	.....	.....	2.00	.....	.....	.....	2.60	1.75	.....	.....	395

†Official quotations Boston Stock Exchange. Total sales, 145,516 shares. * Ex-Dividend.

PHILADELPHIA, PA. §

NAME OF COMPANY.	L'cation.	Par Val.	Mar. 28. H.	Mar. 28. L.	Mar. 29. H.	Mar. 29. L.	Mar. 30. H.	Mar. 30. L.	Apr. 1. H.	Apr. 1. L.	Apr. 2. H.	Apr. 2. L.	Apr. 3. H.	Apr. 3. L.	Sales
Am. Alkali	.....	$50	1.88	1.75	1.88	1.75	1.88	.....	.....	.....	2.00	.....	2.00	1.88	1,900
Am. Cement	.....	10	7.00	.....	7.00	.....	.....	.....	7.00	.....	7.00	.....	7.00	6.88	965
Bethlehem Iron	Pa.	50	62.00	.....	.....	.....	.....	.....	61.50	.....	.....	.....	61.50	.....	19
Bethlehem Steel	"	50	.....	.....	18.00	.....	18.00	17.75	18.50	18.00	18.25	.....	19.63	18.00	5,979
Cambria Iron	"	50	46.00	.....	.....	.....	.....	.....	45.75	.....	45.75	.....	.....	.....	848
Cambria Steel	"	50	16.75	16.25	16.88	16.38	16.75	.....	16.88	16.38	17.38	17.38	20.00	18.13	39,542
Susq. I. & S	"	10	2.25	.....	2.25	2.18	2.19	.....	2.13	.....	2.13	.....	.....	.....	1,760
United Gas I	"	50	124	.....	124	.....	†124	123⅛	124	123⅛	126¾	123⅛	126	124¾	5,880

Total shares sold, 56,893. § Reported by Townsend, Whelen & Co., 309 Walnut St. Philadelphia.

SALT LAKE CITY, UTAH. Mar. 30.

STOCKS.	Shares.	Par val.	Bid.	Asked.	STOCKS.	Shares.	Par val.	Bid.	Asked.
Ajax	300,000	$10	$1.06⅞	$1.07	Horn Silver	400,000	$25	$1.00	.....
Albion	.....	.....	.30	.40	Joe Bowers	400,000	1	.01⅜	$0.01¾
Alice	400,000	25	.30	.....	Lower Mammoth	150,000	1	4.45½	4.50
Anchor	.....	.....	2.50	.....	Mammoth	400,000	5	2.35	2.60
Ben Butler	.....	.....	.10¼	.10⅝	May Day	400,000	¾	.65	.67½
Bullion-Beck & Ch	100,000	10	3.25	.....	Northern Light	400,000	5	.11	.12
Centennial Eureka	200,000	25	30.00	35.00	Ontario	150,000	100	9.17½	11.00
Cons. Mercur	1,000,000	5	3.25	3.30	Rocco-H'st'k-Nev	.....	.....	.....	1.05
Dalton	500,000	5	.08	.09¼	Sacramento	1,000,000	5	.44	.44¾
Dalton & Lark	2,500,000	1	.07¼	.07½	Showers Cons	400,000	5	.05¼	.10
Daly	150,000	20	2.00	2.20	Silver King	150,000	20	.82	.90
Daly-West	150,000	20	34.55	35.00	Silver Shield	.....	.....	.11	.11½
Dexter	200,000	5	.92	1.09	Star Consolidated	500,000	1	.35½	.36½
Eagle & Blue Bell	250,000	1	.84	1.00	Sunbeam	250,000	1	.37	.39
Four Aces	250,000	1	.....	.....	Swansea	100,000	5	4.00	4.10
Galena	100,000	10	.....	.11	South Swansea	150,000	1	.74	.77½
Golden Eagle	250,000	1	.01⅜	.02½	Utah	100,000	1	.67	.70
Grand Central	250,000	1	7.26	7.42½	Valeo	200,000	10	.30	.25
Homestake	400,000	1	.03	.....	Yankee Consol'd	250,000	0.10	.27	.27½

TORONTO, ONT.

NAME OF COMPANY.	Par val.	Mar. 23. B.	Mar. 23. A.	Mar. 25. B.	Mar. 25. A.	Mar. 26. B.	Mar. 26. A.	Mar. 27. B.	Mar. 27. A.	Mar. 28. B.	Mar. 28. A.	Mar. 29. B.	Mar. 29. A.	Sales.
Ontario:														
Golden Star	1	.05	.05½	.05⅝	.05¾	.05¾	.06	.05	.05½	.06	.06⅛	.06	.06⅛	5,000
Ham Reef	1	.....	.....	.....	.....	.01½	.....	.01⅝	.....	.01¾	.....	.01⅝	.....	22,000
Olive	1	.10	.12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
British Col.:														
Cariboo M'k	1	.33	.36	.32½	.33	.33	.36	.32½	.37	.34	.36¾	.34½	.35½	4,700
Crow's N. C.	25	80.00	90.00	78.00	90.00	78.00	85 00	78.00	85.00	78.00	85.00	78.00	85.00	.....
Deer Trail	1	.02	.02⅜	.02	.02½	.02	.02⅜	.02	.02¾	.02	.02⅛	.01¾	.02¼	.....
Eve Star	1	.05	.08	.05	.08	.05	.08	.05	.08	.05	.08	.05	.08	.....
Fairview	1	.02⅜	.03¼	.02⅜	.03¼	.02⅝	.03¼	.02½	.03¾	.02½	.03¾	.02½	.03	4,000
Iron Mask	1	.32	.38	.32	.38	.32	.38	.32	.38	.30	.38	.32	.38	500
Jim Blaine	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Knob Hill	1	.50	.60	.41	.55	.45	.60	.40	.60	.40	.56	.46	.60	.....
Mont Cristo	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mont & Lon	0.24	.03	.03½	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morrison	1	.03½	.08	.06	.08	.06	.08	.06	.07½	.06	.07¾	.05	.07	1,000
Mount. Lion	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Star	1	.78	.85	.78	.85	.78	.85	.78	.83	.76	.83	.76	.83	5,000
Payne	1	.37¼	.39	.36	.40	.35	.40	.35	.40	.35	.39	.35	.37	.....
Princess M	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	850
Rambler	1	.25	.27	.24	.28	.24½	.26	.25	.26	.25	.27½	.24	.27	2,000
Republic	1	.32½	.36	.29	.34	.30	.35	.29¾	.30	.24	.26	.24	.27	1,000
Van Anda	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Victory Tri	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Virtue	1	.17	.24	.17½	.24	.18	.24	.12	.20	.15	.22	.15	.28	.....
War Eagle	1	.35	.40½	.34	.43	.39½	.40½	.39¾	.40¾	.39	.40	.38	.40¾	5,000
Waterloo	0.10	.02	.05	.01¾	.02⅝	.01¾	.02¾	.01⅞	.02¼	.01¾	.02	.01¾	.02	9,000
White Bear	1	.04½	.04⅝	.04	.04½	.04½	.04¾	.04	.04½	.03¾	.04	.03¾	.04	10,000
Winnipeg	1	.07½	.09½	.07	.09½	.07	.09	.07	.08¾	.07	.09	.07	.09	.....
Develop Co.:														
B.C.G. Field	1	.02⅝	.03	.02½	.03	.02½	.03¼	.02¼	.02⅞	.02¼	.03	.02¼	.03	.....
Can. G. F. S.	0.10	.07	.07¼	.07	.07¼	.06¾	.07½	.06½	.07	.06¼	.07	.06¼	.07	7,000

Total shares sold, 74,050.

COLORADO SPRINGS, COLO. §

NAME OF COMPANY.	Par val.	Mar. 25. B.	Mar. 25. A.	Mar. 26. B.	Mar. 26. A.	Mar. 27. B.	Mar. 27. A.	Mar. 28. B.	Mar. 28. A.	Mar. 29. B.	Mar. 29. A.	Mar. 30. B.	Mar. 30. A.	Sales.
Acacia	$1	.17½	.17¾	.17	.17½	.16¾	.17	.16½	.16¾	16	.16½	.16	.16½	13,500
Alamo	1	.13½	.13¾	.13½	.13¾	.13	.13⅜	.13	.13⅜	.12⅞	.13¼	.12¾	.13⅛	19,000
Am. Con	1	.....	.06	.05	.05¾	.05¼	.05¾	.....	.05¾	.05⅛	.05¾	.05	.05⅜	.....
Anaconda	1	.40	.42	.40½	.41	.39¾	.40	.39½	.40	.41	.41½	.41	.42	21,100
Anchor	1	.02	.02¼	.01⅞	.02¼	.01¾	.02¼	.02	.....	.....	.....	.02	.....	5,000
Anchoria L	1	.55	.....	.50	.....	.50	.....	.50	.....	.50	.....	.50	.....	.....
Antelope	1	.02	.02½	.02	.02½	.....	.02½	.02	.02½	.....	.02	.02	.02	2,000
Aola	1	.....	.04¼	.04	.04¼	.04	.04¼	.03¾	.04	.03⅝	.03⅞	.03¾	.03¾	6,000
Arcadian	1	.....	.....	.....	.....	.....	.03	.....	.03	.....	.03	.....	.03	.....
Arg'ntum J	1	.23½	.24½	.20	.24	.20	.21	.21¼	.23	.23½	.24½	.25	.25¼	40,000
Banner	1	.03	.03½	.03	.03¼	.03	.03½	.02½	.03	.....	.03	.02½	.02⅞	1,000
Battle Mt.C	1	.26½	.28	.....	.28	.....	.25	.....	.27	.....	.28	.27¼	.27⅝	3,000
Ben Hur	1	.09½	.09½	.....	.10	.....	.09½	.....	.09¾	.09¾	.09	.....	.09	5,000
Black Bell	1	.12½	.12⅝	.12½	.12¾	.12½	.13	.12¼	.13½	.12½	.....	.12½	.13	22,000
Blue Bell	1	.18	.....	.....	.17½	.17	.17⅜	.16½	.17⅜	.16	.17	.16	.16½	4,000
Bob Lee	1	.05	.....	.03	.05¾	.05	.05½	.05	.05¾	.05	.05¼	.....	.....	5,000
Buckhorn	1	.04¼	.04½	.04¼	.04¾	.03	.04¾	.03¾	.04	.....	.04¾	.03¾	.04	3,000
Cadillac	1	.02½	.02¾	.02½	.02¾	.02½	.02¾	.02½	.02¾	.02½	.....	.01⅞	.....	2,000
Central C'n	1	.07⅜	.08	.07⅜	.07⅞	.....	.07	.07⅜	.07⅝	.07⅜	.08	.08	.08½	70,000
Champion	1	.05¼	.05¾	.05	.05¾	.05	.05¼	.....	.05½	.04⅞	.05¼	.05	.05¼	4,000
Chicolo	1	.02¾	.02½	.02¾	.02⅞	.02¼	.02½	.02¼	.02¾	.02¼	.02½	.02½	.02⅝	5,000
C. K. & N	1	.02⅝	.02⅞	.02⅝	.02⅞	.02⅜	.02⅞	.02½	.02⅞	.02½	.02¾	.02⅜	.02½	5,000
C. C.Col'bia	1	.13⅞	.14¼	.13¾	.15	.13⅝	.14¼	.13½	.14¼	.13⅝	.14	.13⅝	.13⅞	11,500
C. C. G. Ext	1	.10	.12	.10	.12	.10	.12	.....	.....	.....	.13	.....	.13	.....
C. C. & Man	1	.03⅜	.03½	.03	.03⅝	.03¼	.03¾	.03	.03⅝	.03¼	.03	.03	.03¼	15,300
Copper Mt.	1	.02⅝	.02⅝	.02⅜	.02⅝	.02¼	.02⅝	.02¼	.02⅜	.01¾	.02	.01⅞	.02	42,000
Creede&CC	1	.03¼	.10¾	.03	.10¼	.....	.....	.09¼	.09¾	.08	.....	.09	.....	2,100
C. C. Con	1	.11	.11¼	.10¾	.11¾	.10¾	.11	.10¾	.11	.10¾	.10¾	.10¾	.11	14,000
Dante	1	.07⅜	.07¾	.06¾	.06¾	.07	.07⅜	.07	.07¾	.07⅜	.07⅜	.07	.04¼	16 000
Des Moines	1	.04½	.....	.04	.....	.04	.07	.04	.....	.04½	.....	.04¼	.....	2,000
Eclipse	1	.10	.10¾	.09	.10	.....	.....	.08	.09	.08½	.09	.09	.09½	6,000
Elkton Con	1	1.78	1.78¾	1.77½	1.78¾	1.77½	1.79¼	1.76	1.77½	1.76	1.79	1.77½	1.77¾	53,000
El Paso G	1	.44½	.45	.43¾	.44½	.43¾	.44	.43½	.45	.44½	.45½	.46½	.49¼	10,736
Enterprise	1	.13¼	.14	.....	.13¾	.13	.....	.12¾	.13	.....	.12¾	.11	.12	56,444
F. Rawlings	1	.....	.20¾	.15	.20¾	.....	.20¾	.15	.21	.....	.21	.....	.21	9,500
Findley	1	.12½	.14	.12½	.14	.12½	.13	.12	.....	.12½	.14	.12½	.13	.....
Garf. Conn.	1	.08	.....	.08	.....	.08	.....	.09½	.11¾	.03	.....	.09	.....	3,000
Golden Fl	1	.34	.39	.33	.38	.28	.30	.33	.....	.38	.40	.37	.40	.....
Gold Hill	1	.02¾	.02⅝	.02½	.02¾	.....	.....	.02⅜	.02⅝	.02½	.02¾	.02½	.02¾	4,750
Gold Soy'n	1	.07	.07¼	.06⅝	.06¾	.06	.06	.06	.06¾	.06¼	.06¾	.06⅜	.06½	2,000
Hayden	1	.01⅜	.....	.01⅜	.....	.01⅜	.....	.02	.....	.....	.....	.01⅜	.01⅝	34,000
Humboldt	1	.....	.03	.....	.03	.....	.03	.....	.03	.....	.....	.....	.03	2,000
Ida May	1	.21	.23	.21	.23	.20	.22	.20	.21	.....	.22	.....	.21	.....
Ing. Con	½	.18	.18¼	.23¾	.23¾	.18¾	.18⅝	.18¾	.18¾	.18¾	.19¼	.19¼	.19¼	3,000
Ironclad	1	.06	.06¼	.06	.06½	.05¾	.06	.05¾	.06¼	.05¾	.06	.05¾	.06	35,000
Isabella	1	.77	.77½	.72½	.75	.70¾	.71	.71	.71¾	.71¾	.72	.71½	.74¾	7,000
Jack Pot	1	.54	.56	.53½	.54½	.52½	.53½	.50	.54	.....	.54	.53	.53½	20,100
Josephine	1	.....	.....	.....	.....	.....	.....	.....	.01¼	.....	.....	.01	.01¼	3,500
Key West	1	.....	.....	.....	.....	.....	.02¼	.....	.02	.....	.02	.....	.02	.....
Lexington	1	.8	.08¾	.08½	.08⅝	.08½	.08⅞	.07¾	.08	.07⅞	.08	.07¾	.08	32,000
Magnet R	1	.02⅝	.02¾	.02¾	.02½	.02⅝	.03	.02⅝	.02¾	.02⅝	.02⅞	.02⅝	.03	3,000
Margaret	1	.02⅝	.03	.....	.02	.....	.02	.01⅝	.02	.....	.02	.....	.01¾	7,000
Margery	1	.....	.....	.02⅜	.02¾	.02⅜	.02¾	.02⅜	.03	.....	.03	.02⅜	.02¾	1,000
Maton	1	.16	.....	.16	.....	.16	.....	.16	.....	.16	.20	.16	.20	.....
Midway	1	.....	.04	.....	.02	.03	.03⅜	.03	.04	.03	.03⅝	.03	.03⅜	17,000
M. J. T	1	.03¼	.03¾	.03¼	.03	.03¼	.03	.03¼	.03	.03¼	.03	.....	.03	6,000
Mobile	1	.....	.03⅜	.....	.03	.02¾	.03¼	.....	.03⅜	.....	.03⅜	.....	.03¼	1,000
Moll.Dwyer	1	.05½	.05¼	.05¼	.05⅜	.05	.05½	.05½	.05¾	.05¼	.05¼	.05¼	.05½	23,400
Mollie Gib.	1	.27	.27½	.25	.26⅞	.25	.27	.22	.24	.22	.....	.22	.....	11,000
Monarch	1	.....	.....	.05¼	.05⅝	.05¼	.05⅞	.05	.05¾	.05	.05⅜	.05	.05¼	3,000
Montreal	1	.03	.04¼	.03	.....	.03	.04	.03	.03½	.04	.....	.03	.04	1,000
Moon-A'c'r	1	.29½	.....	.29	.....	.29	.31	.29	.....	.28	.30	.29	.....	300
Morning S	1	.03⅜	.03¾	.03⅜	.03⅝	.03¼	.03½	.03¼	.03⅝	.03¼	.03⅝	.03¼	.03¾	5,000
Mtn.Beauty	1	.05⅜	.05⅞	.05⅞	.06	.05¾	.06	.05¼	.05½	.04¾	.05	.04¾	.05	20,000
Mt. Rosa	1	.40¼	.....	.40	.50	.40	.45	.40	.48	.....	.48	.....	.40	13,000
National	1	.07	.07¼	.05⅜	.05⅞	.04⅜	.05¼	.05¼	.05½	.05⅜	.05⅝	.05¾	.06	84,000
Nellie V	1	.....	.06	.05¾	.06	.....	.05½	.05¼	.05¼	.05½	.05½	.05¼	.05½	5,000
New Haven	1	.07⅛	.09	.03½	.08¾	.03½	.03⅝	.08	.08½	.07⅛	.07¾	.07⅜	.07½	46,000
Olive B'nch	1	.03½	.03⅞	.03½	.03¾	.03	.03¾	.03	.03¾	.03	.03⅞	.03	.03¾	5,000
Ophir	1	.27½	.29	.27½	.30	.27	.....	.....	.....	.25	.29	.25	.29	1,000
Oriole	1	.02⅜	.....	.03	.03½	.02⅜	.03	.02½	.03¼	.02⅜	.03¼	.02⅜	.03	3,000
Orphan	1	.15½	.16	.13¼	.....	.14¼	.....	.14¼	.15	.....	.14¼	.14¼	.14½	45,000
Pelican	1	.01⅞	.02	.02⅜	.02⅞	.01⅜	.01⅞	.01⅜	.02	.....	.....	.....	.....	13,000
Pharmacist	1	.14	.14¼	.13¼	.13¾	.12½	.13½	.12½	.13	.13	.13¼	.12⅞	.13¼	14,000
Pilgrim	1	.08	.09	.07	.09	.08	.09	.....	.09	.08	.09	.07	.09¼	1,000
Pinnacle	1	.12½	.14	.12½	.13⅝	.12½	.13¼	.12½	.14	.12½	.11½	.12	.

STOCK QUOTATIONS.

LONDON.

March 22.

NAME OF COMPANY.	Country.	Author-ized capital.	Par value.	Last dividend. Amt.	Last dividend. Date.	Quotations. Buyers	Quotations. Sellers.
American:			£ s. d.	s.d.		£ s. d.	£ s. d.
Alaska Goldfields, g	Alaska	£900,000	1 0 0	2 3	Jan., 1901	17 6	1 0 0
Alaska-Treadwell, g.	"	1,000,000	5 0 0	1 6	" "	4 17 6	5 2 6
Anaconda, c., s	Montana	6,000,000	5 0 0	8 2	Oct., 1900	9 2 6	9 7 6
British Am. Corp.	British Col'mbia	1,500,000	1 0 0	2 0	Mar., 1900	3 6	4 6
Coplapo, c.	Chile	200,000	2 0 0	3 4	Dec., 1900	3 5 0	3 7 6
De Lamar, g., s.	Idaho	400,000	1 0 0	0 6	May, 1900	2 6	3 6
El Oro, g.	Mexico	1 000,000	1 0 0	1 0	Feb., 1901	1 3 9	1 5 3
Frontino & Bolivia, g.	Colombia	140,000	1 0 0	1 6	Oct., 1899	2 3 9	2 6 3
Grand Central, g., s.	Mexico	300,000	1 0 0	2 0	Jan., 1900	5 0	7 6
Hall Mg. & Sm., c., s	British Col.	325,000	1 0 0	.....	.....	4 0	5 0
Le Roi, g.	" "	1,000,000	5 0 0	5 0	Nov., 1899	6 18 9	7 1 3
Le Roi No. 2, g.	" "	120,000	5 0 0	.....	.....	4 0 0	4 10 0
Lillie, g.	Colorado	250,000	1 0 0	2½	Apr., 1900	2 6	7 6
Montana, g., s.	Montana	660,000	1 0 0	6	Apr., 1899	2 6	3 0
Mountain Copper	California	1,250,000	5 0 0	9 0	Oct., 1900	4 17 6	5 2 6
Stratton's Independence	Colorado	1,100,000	1 0 0	6	Jan., 1901	1 11 3	1 13 9
St. John del Rey, g.	Brazil	600,000	1 0 0	1 0	Dec., 1900	1 1 3	1 3 9
Utah Con., g. (Highl'nd Boy)	Utah	140,000	1 0 0	rts.	Mar., 1898	6 17 6	7 2 6
Ymir, g.	British Col'mbia	200,000	1 0 0	1 0	Jan., 1901	1 7 6	1 10 0
European:							
Linares, l.	Spain	45,000	3 0 0	14 0	Oct., 1900	6 0 0	7 0 0
Mason & Barry, c., sul.	Portugal	420,000	2 0 0	£1	" "	3 10 0	3 15 0
Rio Tinto, c.	Spain	1,625,000	5 0 0	£2	Nov., 1900	57 10 0	57 15 0
" " pref.	"	1,625,000	5 0 0	2 6	" "	6 0 0	6 5 0
Tharsis, c.	"	1,250,000	2 0 0	15 0	Apr., 1900	8 2 6	8 7 6
Australian:							
Assoc. Gold Mines.	W. Australia	500,000	1 0 0	1 6	Jan., 1900	2 7 6	2 10 0
Broken Hill Prop., s.	N. S. Wales	384,000	8 0	1 6	Nov., 1900	2 6 6	3 7 6
Great Boulder Prop.	W. Australia	175,000	3 0	6	Feb., 1901	1 3 9	1 3 3
Hannan's Brownhill, g.	"	140,000	1 0 0	7 6	Oct., 1900	3 15 0	3 17 6
Ivanhoe Gold Corp.	"	1,000,000	5 0 0	5 0	Nov., 1900	8 1 3	8 3 9
Kalgurlie, g.	"	120,000	1 0 0	rts.	Oct., 1899	3 2 6	3 7 6
Lake View Consols, g.	"	250,000	1 0 0	5 0	Aug., 1900	8 0 0	8 2 6
Mt. Lyell M. & R., l., c.	Tasmania	900,000	3 0 0	2 0	Apr., 1901	4 1 3	4 3 9
Mt. Morgan, g.	Queensland	1,000,000	1 0 0	7	Mar., 1901	4 13 9	4 16 3
Waihi g.	New Zealand	330,000	1 0 0	2 6	Mar., 1901	9 0 0	9 5 0
Indian:							
Champion Reef, g.	Colar Fields	220,000	10 0	5 0	Jan., 1901	6 0 0	6 2 6
Mysore Gold, g.	"	250,300	10 0	rts.	Dec., 1900	5 17 6	6 0 0
Nundyroog, g.	"	242,000	1 0 0	2 9	Mar., 1901	4 5 0	4 7 6
Ooregum, g.	"	145,000	1 0 0	2 6	Dec., 1900	4 8 9	4 11 3
" pref. g.	"	120,000	1 0 0	2 6	" "	5 7 6	5 12 6
African:							
British S. Africa, chartered	So. Africa	5,000,000	1 0 0	rts.	May, 1899	3 7 6	3 10 0
Cape Copper, c.	"	600,000	1 0 0	5 0	Jan., 1901	5 0 0	5 5 0
" " pref.	"	150,000	2 0 0	5 0	" "	4 7 6	4 12 6
City & Suburban (New), g.	Transvaal	1,360,000	4 0 0	8 0	Aug., 1899	5 12 6	5 17 6
Con. Deep Level, g.	"	200,000	1 0 0	x all	June, 1898	1 2 6	1 7 6
Crown Reef, g.	"	120,000	1 0 0	18 0	Nov., 1899	14 15 0	15 5 0
De Beers Con., d.	Cape Colony	3,950,000	5 0 0	£1	Jan., 1901	31 5 0	31 10 0
Ferreira, g.	Transvaal	90,000	1 0 0	30 0	Aug., 1899	20 10 0	21 10 0
Geldenhuis Deep, g.	"	350,000	1 0 0	8 0	" "	10 0 0	10 10 0
Geldenhuis Est., g.	"	200,000	1 0 0	10 0	" "	6 10 0	6 15 0
Henry Nourse, g.	"	125,000	1 0 0	10 0	Apr., 1900	8 10 0	8 15 0
Jagersfontein, d.	Orange Fr. St.	1,000,000	5 0 0	6 0	Sept., 1900	17 0 0	18 0 0
Johannesburg Con. Invest.	So. Africa	2,750,000	1 0 0	2 0	Aug., 1899	2 7 6	2 5 0
Jubilee, g.	Transvaal	50,000	1 0 0	5 0	Sept., 1899	5 15 0	6 5 0
Langlaagte Estate, g.	"	470,000	1 0 0	3 0	Aug., 1899	3 6 3	3 8 9
May Con., g.	"	290,000	1 0 0	6 0	July, 1899	4 5 0	4 7 6
Meyer & Charlton, g.	"	100,000	1 0 0	8 0	June, 1899	5 7 6	5 12 6
Namaqua, c.	Cape Colony	200,000	2 0 0	4 0	Dec., 1900	4 17 6	5 2 6
Primrose (New), g.	Transvaal	300,000	1 0 0	6 0	Aug., 1899	4 3 9	4 6 3
Rand Mines, g.	So. Africa	490,000	1 0 0	15 0	" "	41 7 6	41 10 0
Robinson, g.	Transvaal	2,750,000	5 0 0	8 0	.....	9 7 6	9 12 6
Sheba, g.	"	1,100,000	1 0 0	1 0	July, 1898	1 1 3	1 3 9
Sim. & Jack Prop., g.	"	5,000,000	5 0 0	4 0	July, 1899	6 6 3	6 8 9
Wolhuter, g.	"	890,000	4 0 0	2 0	Feb. 1899	4 7 6	4 12 6

C, copper. D, diamonds. G, gold. L, lead. S, silver.

DENVER, COLO.‡

NAME OF COMPANY.	Par val.	Mar. 25 B.	Mar. 25 A.	Mar. 26. B.	Mar. 26. A.	Mar. 27. B.	Mar. 27. A.	Mar. 28. B.	Mar. 28. A.	Mar. 29. B.	Mar. 29. A.	Mar. 30. B.	Mar. 30. A.	Sales.
Acacia	1	.17	.17¾	.17	.17¾	.16¾	.....	.16½	.16¾	.15	.....	.....	.....	12,000
Alamo	5	.13⅛	.13⅜	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,000
Anaconda	1	.....	.....	.40	.....	.39½	.40⅛	.39⅛	.....	.39½	.....	.....	.....	2,000
Arg. J	1	.....	.....	.....	.....	.....	.....	.21	.....	.....	.....	.....	.....	.....
Dictator	1	.02	.02⅜	.02	.02¾	.02½	.02⅝	.02½	.02⅝	.02	.02¼	.....	.....	24,000
Elkton	1	.....	.....	1.78	1.80	1.75½	1.75½	.....	.....	.....	.....	.....	.....	1,000
Ironclad	1	.06	.06⅜	.05	.06⅛	.....	.....	.05⅞	.06	.05⅞	.06	.....	.....	9,000
Isabella	1	.....	.....	.....	.....	.....	.....	.71⅛	.71½	.....	.....	.....	.....	2,000
Josephine	1	.....	.....	.....	.....	.....	.....	.....	.....	.01¼	.01¾	.....	.....	10,000
Magnet R.	1	.02¼	.03	.02⅛	.03⅛	.02½	.02⅞	.02½	.02⅞	.....	.....	.....	.....	19 000
National	1	.....	.....	.06⅛	.06¾	.04½	.05⅜	.05	.05¼	.03½	.05¾	.....	.....	30,000
New Haven	1	.....	.....	.08⅝	.0⁸⅞	.08¼	.....	.07⅞	.08⅞	.....	.....	.....	.....	.....
Reno	1	.03¼	.03¾	.03⅛	.03½	.03	.....	.03	.....	.03⅛	.....	.....	.....	9,000
Republic	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

‡ Official Quotations Denver Stock Exchange. Total sales, 120,000 shares.

SPOKANE, WASH.

Week Mar. 29.

NAME OF COMPANY.	Par val.	B.	A.	Sales.	NAME OF COMPANY.	Par val.	B.	A.	Sales.
Crystal	.....	.03¾	.05¼	.....	Mountain Lion	$1	.20	.25	.....
Deer Trail Con.	$1	.02	.02⅝	4,000	Princess Maud	0.10	.01⅜	.01⅝	9,000
Evening Star	1	.03⅜	.06	.....	Quilp	.....	1	2.⅝	.83	.....
Gold Ledge	.....	.01¾	.02	2,000	Rambler Cariboo	0.25	.25	.25	.26¼	1,500
Jim Blaine	.....	.....	.....	.....	Reservation	.....	.....	.03	.04⅛	.....
Lone Pine Surp. Con.	1	.06⅛	.07½	13,000	Sullivan	.....	.06¼	.09¼	25,000
Morning Glory	0.10	.03⅛	.05⅛	83,000	Tom Thumb	.....	.12	.13½	2,000

PARIS.

Mar. 14.

NAME OF COMPANY.	Country.	Product.	Capital Stock.	Par value.	Latest divs.	Prices. Opening.	Prices. Closing.
			Francs.	Fr.	Fr.	Fr.	Fr.
Aciéries de Creusot	France	Steel mfrs.	27,000,000	2,000	85.00	1,815.00	1,819.00
" " Firminy	"	"	3,000,000	500	175.00	3,100.00	3,055.00
" " Fives-Lille	"	"	12,000,000	500	.....	465.00	465.00
" " Huta-Bank	Russia	Iron & steel	.....	500	.....	3,550.00	3,525.00
" " la Marine	France	Steel mfrs.	20,000,000	500	60.00	1 510.00	1,495.00
Anzin	"	Coal	.....	.....	360.00	5,561.00	5,595.00
Roleo	Lower Cal.	Copper	.....	500	176.00	2,739.00	2,650.00
Briansk	Russia	Coal & iron	.....	500	.....	613.75	610.00
Champ d'Or	S. Africa	Gold	3,375,000	25	3.75	37.00	38.50
Courrieres	France	Coal	600,000	300	90.00	2,310.00	2,350.00
Dombrowa	Russia	"	.....	500	75.00	1,010.00	1,009.00
Dynamite Centrale	France	Explosives	.....	500	22.50	440.00	443.00
Escombrera-Bleyberg	Spain	Lead	.....	500	70.00	1,090.00	1,080.00
Fraser River	Brit. Col'mb.	Gold	250,000	25	.....	7.00	7.00
Huanchaca	Bolivia	Silver	40,000,000	125	5.00	150.50	151.50
Laurium	Greece	Zinc & lead	16,300,000	500	30.00	487.50	485.00
Malfidano	Italy	Zinc	12,500,000	500	50.00	850.00	730.00
Metaux, Cie. Fran. de	France	Metal d'lers.	25,000,000	500	10.00	480.00	470.00
Mokta-el-Hadid	Algeria	Iron	18,312,500	500	55.00	910.00	910.00
Napthe Baku	Russia	Petroleum	.....	.....	.....	599 50	597.50
Napthe Nobel	"	"	.....	.....	.....	527.00	532.50
" " parts	"	"	.....	.....	.....	10,525.00	10,650.00
Nickel	N. Caled'nia	Nickel	10,000,000	250	12.50	490.00	476.00
Penarroya	Spain	Coal, etc	.....	500	100.00	2,480.00	2,480.00
Rebecca	Colo'do, U.S.	Gold	5,000,000	25	.....	2 25	1.25
Salines de l'Est	France	Salt	.....	500	5.00	230.00	220.00
Salines du Midi	"	"	.....	500	25.00	855.00	875.00
Vielle Montagne	Belgium	Zinc	9,000,000	80	36.00	646.85	633.75

DIVIDENDS.

COAL, IRON, OIL, AND INDUSTRIAL COMPANIES.

Number.	Name and Location of Company.		Author-ized Capital Stock.	Shares. Issued.	Shares. Par Val	Dividends. Paid, 1901.	Dividends. Total to Date.	Dividends. Latest. Date.	Dividends. Latest. Amt.
1	Alabama Coal & Iron, pf	Ala..	$2,500,000	25,600	$100	$43,750	$262,500	Mar.. 1901	1.75
2	Altoona Coal & Coke	Pa..	2,500 000	250 000	10	75,000	75,000	Jan.. 1901	.30
3	Am. Agricul. Chem., pf.	U. S..	20,000,000	170,449	100	510,000	2,040,000	Mar.. 1901	3.00
4	American Cement	Pa..	2,106,000	200,000	10	80,000	220,000	Jan.. 1901	.40
5	American Coal	Md..	1,500,000	60,000	25	75,000	1,057,500	Mar.. 1901	1.25
6	Am. Fuel Oil	Cal..	100,000	100,000	1	1,000	15,000	Jan.. 1901	.01
7	Am. Iron & Steel, com.	Pa..	17,000,000	34,000	50	8,500	42,500	Jan.. 1901	.25
8	Am. Iron & Steel, pf	Pa..	3,000,000	60,000	50	37,500	237,480	Jan.. 1901	.62½
9	Am. Sheet Steel, pf.	U. S..	26,000,000	245,000	100	428,750	428,750	Jan.. 1901	1.75
10	Am. Steel Hoop, pf.	U. S..	14,000,000	140,000	100	245,000	1,470,000	Jan.. 1901	1.75
11	Am. Steel & Wire, com.	U. S..	50,000,000	500,000	100	1,500,000	4,125,000	Apr.. 1901	1.25
12	Am. Steel & Wire, pf.	U. S..	40,000,000	400,000	100	1,400,000	7,000,000	Apr.. 1901	1.75
13	Arizona Western Oil	Cal..	100,000	100,000	1	.....	1,000	Sept.. 1900	.01
14	Bethlehem Steel	Pa..	15,000 000	300,000	50	150,000	1,050,000	Mar.. 1901	.50
15	Buckhorn Oil	Cal..	200,000	16,000	10	.....	3,800	Mar.. 1900	.05
16	Burlington Oil	Cal..	60,000	60,000	1	600	4,200	Jan.. 1901	.01
17	California Oil & Gas	Cal..	2,000,000	200,000	10	250,000	250,000	Jan.. 1901	1.25
18	Cambria Iron	Pa..	10,000,000	169,320	50	169,320	846,600	Apr.. 1901	1.00
19	Cambria Steel	Pa..	16,000,000	320,000	50	160,000	1,760,000	Feb.. 1901	.50
20	Central Oil	W.Va	1,500,000	60,000	25	22,500	45,000	Feb.. 1901	.37½
21	Central Oil	Cal..	750,000	662,800	1	19,884	92,792	Mar.. 1901	.01
22	Central Point Con. Oil	Cal..	200,000	190,000	1	7,600	15,200	Feb.. 1901	.02
23	Colo. Fuel & Iron, pf.	Colo..	2,000,000	20,000	100	80,000	1,240,000	Feb.. 1901	4.00
24	Consolidation Coal	Md..	10,250,000	102,500	100	205,000	5,318,000	Feb.. 1901	2.00
25	Continental Oil	Cal..	300,000	240,000	1	7,200	7,200	Apr.. 1901	.03
26	Crucible Steel, pf.	U. S..	25,000,000	250,000	100	426,991	853,982	Mar.. 1900	1.75
27	Diamond Star Oil	Cal..	250,000	100,000	1	.....	6,250	Nov.. 1900	.02
28	Diamond State Steel	Del..	3,000,000	150,000	10	60,000	160,000	Jan.. 1901	.40
29	Empire Steel & Iron, pf.	U. S..	5,000,000	23,700	100	35,550	213,300	Jan.. 1901	1.50
30	Federal Steel, com.	U. S..	100000,000	464,843	100	2,324,215	4,067,377	Feb.. 1901	5.00
31	Federal Steel, pf.	U. S..	100000,000	532,609	100	798,914	7,456,568	Jan.. 1900	1.50
32	Flat Top C. L. Ass'n, com	Va..	5,000,000	37,141	100	37,141	315,699	Feb.. 1901	1.00
33	Flat Top C. L. Ass'n, pf.	Va..	5,000,000	37,141	100	37,141	1,987,027	Feb.. 1901	1.00
34	Four Oil	Cal..	300,000	300,000	1	3,000	3,000	Feb.. 1901	.01
35	General Chem., com	U. S..	12,500,000	71,679	100	71,679	485,945	Mar.. 1901	1.00
36	General Chem., pf.	U. S..	12,500,000	82,600	100	123,900	889,778	Mar.. 1901	1.50
37	Gray Eagle Oil	Cal..	250,000	100,000	2½	50,000	170,000	Jan.. 1901	.50
38	Great Western Oil	Cal..	100,000	10,000	10	.....	10,000	Oct.. 1900	.10
39	Home Oil	Cal..	100,000	100,000	1	30,000	230,000	Mar.. 1901	.10
40	Homestake Oil	Cal..	100,000	10,000	10	4,000	27,000	Mar.. 1901	.20
41	Jefferson & Clearf. C'l, com	Pa..	1,500,000	15,000	100	.....	30,000	Aug.. 1900	2.00
42	Jefferson & Clearf. C'l, pf.	Pa..	1,500,000	15,000	100	37,500	225,000	Feb.. 1901	2.50
43	Kern Oil	Cal..	100,000	100,000	1	25,000	375,000	Jan.. 1901	.25
44	Kern River Oil	Cal..	100,000	20,000	5	.....	10,000	Sept.. 1900	.50
45	Lehigh Coal & Nav.	Pa..	14,346,650	286,933	50	.....	18,516,990	Oct.. 1900	1.50
46	Maryland Coal, pf.	Md..	1,885,005	18,850	100	.....	640,869	Dec.. 1900	3.00
47	Monongahela R. Coal, pf	Pa..	10,00),000	200,000	50	350,000	700,000	Jan.. 1901	1.75
48	Montana Coal & Coke	Mont.	5,000,000	200,000	25	.....	120,000	Oct.. 1900	.30
49	National Salt, com.	U. S..	7,000,000	70,000	100	105,000	350,000	Feb.. 1901	1.50
50	National Salt, pf.	U. S..	5,000,000	50,000	100	87,500	612,500	Feb.. 1901	1.75
51	National Steel, pf.	U. S..	27,000,000	270,000	100	472,500	3,780,000	Mar.. 1901	1.75
52	National Tube, com.	U. S..	40,000,000	398,604	100	597,906	1,793,718	Feb.. 1901	1.50
53	National Tube, pf.	U. S..	40,000,000	399,963	100	1,399,870	4,899,546	Apr.. 1901	1.75
54	New Central Coal	Md..	1,000,000	50,000	20	.....	510,000	Nov.. 1900	.40
55	New Haven Iron & Steel	Conn.	500,000	100,000	5	17,500	112.500	Apr.. 1901	.10
56	Oceanic Oil	Cal..	$100,000	100.000	$1	.....	$2,000	Dec.. 1900	.01
57	Pacific Coast Borax	Cal..	2,000,000	19,000	100	$57,000	819.500	Mar.. 1901	1.00
58	Park Crude Oil	Cal..	100,000	82,146	1	.....	4.897	Sept.. 1900	.01
59	Pennsylvania Coal	Pa..	5,000,000	100.000	50	.....	19.700,000	Nov.. 1900	2.00
60	Pennsylvania Salt Mfg.	Pa..	2,500,000	50,000	50	.....	12,550,000	Oct.. 1900	3.00
61	Pennsylvania Steel, pf.	Pa..	1,500,000	15,000	100	52,500	183,750	Apr.. 1901	1.75
62	Phila. Gas, com	Pa..	14,752,131	295,042	50	184,402	922.010	Jan.. 1901	.62½
63	Phila. Gas, pf	Pa..	3,998.350	79,967	50	99,959	299,877	Mar.. 1901	1.25
64	Pittsburg Coal., pf.	Pa..	32,000,000	320,000	100	560,000	2,800,000	Jan.. 1901	1.75
65	Producers' & Con. Oil	Cal..	1,000,000	10,000	100	4,000	57,000	Mar.. 1901	.10
66	Republic Iron & Steel, pf	U. S..	25,000,000	203,069	100	710,742	2,487.596	April. 1901	1.75
67	Rex Oil	Cal..	500,000	85,000	5	.....	26,000	Oct.. 1900	.03
68	San Joaquin Oil	Cal..	100,000	100,000	1	10,000	10,000	Jan.. 1901	.10
69	Shawmut Oil	W.Va	1,250,000	50,000	25	25,000	25,000	Feb.. 1901	.50
70	Shelby Iron	Ala..	1,000,000	10,000	100	.....	250,000	June. 1900	12.00
71	Sloss-Sheffield Ir. & St., pf	U. S..	20,000,000	67,000	100	231,250	573,250	Apr.. 1901	1.75
72	So. Cal. Oil & Fuel	Cal..	300,000	100,000	1	.....	3,000	Dec.. 1900	.00½
73	Standard Oil (of N. J.)	U. S..	100000,000	975,000	100	19,500,000	92,625,000	Mar.. 1901	20.00
74	Sunday Lake Iron	Mich.	1,000,000	40,000	25	40,000	40,000	Feb.. 1901	1.00
75	Susquehanna I. & S., pf.	Pa..	1,500,000	300,000	5	22,500	537,500	Jan.. 1901	.07½
76	Tenn. Coal, I. & R. R., com	Tenn.	23,000,000	225,536	100	.....	1,102,144	Nov.. 1900	2.00
77	Tenn. Coal, Ir. & R. R., pf	Tenn.	248,000	2,480	100	4,960	248,000	Feb.. 1901	2.00
78	Texas & Pacific Coal	Tex..	2,000,000	20,000	100	60,000	1,860,000	Apr.. 1901	1.50
79	United States Crude Oil	Cal..	100,000	10,000	1	.....	3,200	Dec.. 1900	.03
80	United States Marble	Wash	1,500,000	1,500,000	1	3,750	3,750	Mar.. 1901	.00¼
81	United States Oil	W.Va	2,500,000	100,000	25	.....	744,250	Oct.. 1900	.50
82	Va.-Carolina Chem., com	U. S.	12,000,000	90,000	100	90,000	810,000	Mar.. 1901	1.00
83	Va.-Carolina Chem., pf.	U. S.	12,000,000	100,000	100	200,000	1,400,000	Jan.. 1901	2.00
84	Warwick Iron & Steel	Pa..	1,500,000	14,133	100	.....	158,597	Nov.. 1900	2.00
85	West Lake Oil	Cal..	500,000	500,000	1	.....	50,000	Sept.. 1900	.01
86	Westmoreland Coal	Pa..	5,000,000	250,000	50	.....	750,000	Oct.. 1900	1.50
87	Yukon Oil	Cal..	2,500,000	100,000	2½	.....	21,000	Oct.. 1900	.02

This table is corrected up to March 18th. Correspondents are requested to forward changes or additions.

DIVIDENDS.

GOLD, SILVER, COPPER, ZINC, LEAD AND QUICKSILVER COMPANIES.

Number.	Name and Location of Company.		Authorized Capital Stock.	Shares. Issued.	Par Val	Dividends. Paid, 1901.	Total to Date.	Latest. Date.	Amt.
1	Acacia, g.	Colo.	$1,500,000	1,500,000	$1	.....	$45,000	Dec.. 1900	.01
2	Adams, s.l.c.	Colo.	1,500,000	150,000	10	.....	701,000	Nov.. 1900	.05
3	Ætna Con., g.	Cal..	500,000	100,000	5	.....	225,000	Apr.. 1900	.15
4	Alaska Goldfields	Alask	1,500,000	250,000	5	$127,500	252,500	Jan.. 1901	.51
5	Alaska-Mexican, g.	Alask	1,000,000	180,000	5	18,000	519,031	Jan.. 1901	.10
6	Alaska Treadwell, g.	Alask	5,000,000	200,000	25	75,000	4,595,000	Jan.. 1901	.37½
7	Alice, g. s.	Mont.	10,000,000	400,000	25	.....	1,875,000	Apr.. 1898	.05
8	Alliance, g.	Colo..	500,000	500,000	1	.....	47,500	Nov.. 1899	.07
9	Amalgamated, c.	Mont.	75,000,000	750,000	100	1,500,000	9,000,000	Jan.. 1901	2.00
10	Amanda, g.	Colo..	1,000,000	1,000,000	1	.....	10,000	June. 1900	.01
11	Amazon, g.	Colo..	600,000	600,000	1	.....	121,882	May.. 1900	.10
12	American, g.	Colo..	3,000,000	300,000	10	.....	446,000	Dec.. 1899	.07
13	Amer. Sm & Ref., pref.	U. S..	32,500,000	274,000	100	479,500	3,162,053	Jan.. 1901	1.75
14	Am. Zinc, Lead & Sm.	Mo...	2,500,000	60,000	25	.....	180,000	Jan.. 1900	1.00
15	Anaconda, c.	Mont.	30,000,000	1,200,000	25	.....	16,950,000	Oct.. 1900	2.00
16	Anchoria-Leland, g.	Colo..	600,000	600,000	1	.....	198,000	Apr.. 1899	.03
17	Anglo-Mexican, g.	Mex..	2,001,625	400,230	25	.....	1,825,048	Dec.. 1899	.24
18	Appie Ellen, g.	Colo..	600,000	600,000	1	.....	25,000	Nov.. 1898	.04
19	Apollo Con., g.	Alask	1,000,000	100,000	10	.....	210,000	Jan.. 1900	.07
20	April Fool, g.	Nev..	500,000	500,000	1	.....	16,000	Oct.. 1899	.03
21	Argonaut, g.	Cal..	2,000,000	200,000	10	.....	490,000	May.. 1900	.05
22	Arizona, c.	Ariz..	3,190,550	.....	...	421,153	1,886,001	Mar.. 1901	1.32
23	Associated, g.	Colo..	1,250,000	1,250,000	1	.....	84,000	Feb.. 1899	.01
24	Atlantic, c.	Mich.	1,000,000	40,000	25	80,000	880,000	Feb.. 1901	2.00
25	Bald Butte, g. s.	Mont.	250,000	250,000	1	45,000	967,148	Mar.. 1901	.06
26	Bankok-Cora Belle, g.	Colo..	600,000	600,000	1	.....	107,510	July.. 1896	.01
27	Big Seven, g.	Cal..	100 000	100,000	1	.....	6,000	Apr.. 1898	.03
28	Big Six, g. s. l.	Colo..	500,000	500,000	1	.....	15,000	May.. 1898	.00½
29	Boston, q.	Cal..	1,000,000	100,000	10	.....	20,000	Jan.. 1900	.10
30	Boston-Aurora, pref.	Mo...	800,000	32,000	25	.....	66,160	May.. 1900	.50
31	Boston & California, g.	Cal..	600,000	600,000	1	.....	72,000	June. 1899	.06
32	Boston & Colo. Smelting	Colo..	750,000	15,000	50	11,250	326,350	Jan.. 1901	.75
33	Boston Duenweg, z.	Mo...	1,000,000	40,000	10	.....	56,000	June. 1900	.10
34	Boston Get There, z.	Mo...	250,000	22,500	10	.....	20,250	Apr.. 1900	.10
35	Boston Gold-Copper Sm.	Colo..	1,000,000	1,000,000	1	.....	50,000	Nov.. 1900	.02½
36	Boston & Mont. Con., c. s. g	Mont.	3,750,000	150,000	25	1,500,000	22,475,000	Feb.. 1901	10.00
37	Boston-Phila., z. l.	Kas..	200,000	20,000	10	.....	2,000	May .. 1900	.10
38	Boston-Providence, z., pf	Mo...	150,000	15,000	10	.....	17,242	Aug.. 1900	.05
39	Boston Springfield, z.	Mo...	500,000	20,000	25	.....	15,000	June. 1900	.25
40	Boston Sunflower, z.	Mo...	150,000	15,000	10	.....	4,500	Oct.. 1899	.30
41	Breece, i. s.	Colo..	5,000,000	200,000	25	10,000	110,000	Feb.. 1901	.05
42	Buffalo Hump, g.	Idaho	1,000,000	100,000	10	25,000	300,000	Jan.. 1901	.10
43	Bull Hill Con., g.	Colo..	1,500,000	1,500,000	1	45,000	60,000	Mar.. 1901	.01
44	Bullion-Beck & Champ.	Utah.	1,000,000	100,000	10	.....	2,498,400	June. 1900	.10
45	Bunker Hill & Sullivan.	Idaho	3,000,000	300,000	10	63,000	1,116,000	Mar.. 1901	.07
46	Butte & Boston Con., c.	Mont.	2,000,000	200,000	10	.....	1,000,000	Dec.. 1900	5.00
47	Butterfly-Terrible, g.	Colo..	1,500,000	1,250,000	1	6,250	6,250	Jan.. 1901	.001½
48	Calumet & Hecla, c.	Mich.	2,500,000	100,000	25	.....	72,850,000	Dec.. 1900	20.00
49	Cariboo-McKinney, g.	B.Col	1,250,000	1,250,000	1	.....	478,087	Oct.. 1900	.01½
50	Centen'l-Eureka, g.s.l.c.	Utah.	5,000,000	100,000	25	50,000	2,467,700	Jan.. 1901	.50
51	Center Creek, l. z.	Mo...	1,000,000	100,000	10	.....	40,000	Dec.. 1900	.20
52	Center Star, g.	B. C..	3,500,000	3,500,000	1	105,000	175,000	Apr.. 1901	.01
53	Central Lead, l.	Mo...	1,000,000	10,000	100	15,000	222,000	Mar.. 1901	.50
54	Champion, g. s.	Cal..	340,000	34,000	10	.....	402,300	Dec.. 1899	.25
55	Cloverdale, z.	Mo...	1,000,000	100,000	10	.....	80,000	July.. 1900	.20
56	C. O. D., g.	Colo..	500,000	500,000	1	.....	25,000	Mar.. 1896	.01
57	Colonial, l.	Mo...	1,000,000	1,000,000	1	.....	10,000	Aug.. 1899	.01
58	Columbia, l.	Mo...	500,000	48,500	10	.....	12,125	June. 1900	.05
59	Columbian Hyd., c.	C'l'm	375,000	75,000	5	.....	454,500	Jan.. 1899	.12
60	Commodore, g.	Colo..	1,200,000	1,200,000	1	.....	432,000	Jan .. 1899	.04
61	Commonwealth, z., pref.	Mo ..	500,000	100,000	5	.....	50,000	June. 1900	.05
62	Consolidated Gold Mines	Colo..	1,000,000	1 000 000	1	30,000	160,000	Mar.. 1901	.01
63	Con. Mercer Gold Mines.	Utah.	5,000,000	1,000,000	5	.....	1,591,000	Nov.. 1900	.11
64	Consolidated, z. l., pf.	Mo...	400,000	400,000	1	.....	8,000	Jan .. 1900	.20
65	Copiapo, c.	Chile.	1,000,000	100,000	10	.....	2,520,000	July.. 1899	1.44
66	Cordell, z. l.	Mo...	300,000	60,000	5	.....	30,000	Sept.. 1900	.05
67	Cripple Creek Con., g.	Colo..	2,000,000	2,000,000	1	.....	160,000	Mar.. 1900	.08
68	Cresus, g.	Cal..	1,000,000	200,000	5	24,000	175,300	Mar.. 1901	.06
69	Crowned King, g. s.	Ariz..	6,000,000	600,000	10	.....	242,760	May .. 1899	.02
70	Dalton & Lark, g. s. l.	Utah.	2,500,000	2,500,000	1	.....	87,500	Mar.. 1896	.00½
71	Daly West, g.	Utah.	3,000,000	150,000	20	135,000	742,500	Mar.. 1901	.30
72	Deadwood-Terra, g.	S. D..	5,000,000	200,000	25	.....	1,350,000	May .. 1898	.15
73	Deer Trail Con., g.	Wash	3,000,000	3,000,000	1	.....	55,000	Dec.. 1899	.00½
74	De Lamar, g. s.	Idaho	2,000,000	400,000	5	.....	2,394,000	May .. 1900	.12
75	Della S., g. s.	Colo..	1,000,000	1,000,000	1	.....	60,000	Jan.. 1897	.01
76	Dewey Con., g.	Utah.	10,000	10,000	1	2,250	4,850	Feb.. 1901	.07½
77	Dixie, g.	Utah.	125,000	125,000	1	.....	10,000	Apr.. 1900	.02
78	Doctor-Jack Pot Con., g	Colo..	3,000,000	2,900,000	1	87,000	87,000	Mar.. 1901	.01
79	Doe Run, l.	Mo...	1,500,000	10,000	100	15,000	417,072	Jan.. 1901	1.50
80	Ducktown, c. i. sul. (ord)	Tenn.	374,000	7,480	50	.....	133,144	May.. 1900	5.00
81	Ducktown (founder).	Tenn.	1,000	200	5	.....	66,160	May.. 1900	125.00
82	Eldorado, g.	Cal..	1,000,000	100,000	10	.....	10,000	July.. 1899	.10
83	Elkton Con., g.	Colo..	3,000,000	2,500,000	1	75,000	1,054,461	Mar.. 1901	.03
84	El Oro, g. s.	Mex..	5,000,000	1,000,000	5	240,000	480,000	Feb.. 1901	.24
85	Empire State-Idaho, l.s.	Idaho	6,000,000	505,542	10	130,663	803,351	Mar.. 1901	.10
86	Enterprise, g.	Colo..	500,000	500,000	1	.....	900,000	Sept.. 1898	.05
87	Fanny Rawlings, g.	Colo..	1,000,000	1,000,000	1	.....	20,000	Aug.. 1899	.01
88	Fern, g.	B. C..	200,000	200,000	1	.....	10,000	Jan... 1898	.05
89	Ferris-Haggarty, c.	Wyo	1,000,000	1,000,000	1	.....	5,000	Mar.. 1899	.00½
90	Florence, s.	Mont.	2,500,000	400,000	5	.....	223,780	Mar.. 1901	.05
91	Frisco Con., l. s.	Idaho	2,500,000	500,000	5	.....	920,000	Nov.. 1899	.25
92	Frontino & Bolivia, c.	C'l'm	643,310	128,662	5	.....	1,109,066	Oct.. 1899	.36
93	Galena, s. l. g.	Utah.	1,000,000	100,000	10	.....	71,000	Sept.. 1897	.05
94	Garfield Con., g.	Colo..	1,200,000	1,200,000	1	.....	34,000	May. 1899	.01
95	Gemini	Utah.	500,000	5,000	100	.....	700,000	Aug.. 1900	10.00
96	Gold Belt, g.	Colo..	1,250,000	1,250,000	1	.....	112,500	Aug.. 1900	.09
97	Gold Coin of Victor, g.	Colo..	1,000,000	1,000,000	1	90,000	690,000	Mar.. 1901	.03
98	Gold Deposit, g.	Colo..	500,000	500,000	1	.....	10,000	Mar.. 1900	.02
99	Gold & Globe, g.	Colo..	750,000	750,000	1	.....	51,625	July.. 1897	.00½
100	Gold King, g.	Colo..	1,000,000	936,850	1	.....	178,001	Oct.. 1900	.03
101	Golden Cycle, g.	Colo..	1,000,000	200,000	5	30,000	408,500	Mar.. 1901	.05
102	Golden Eagle, g.	Colo..	500,000	500,000	1	.....	25,000	June. 1900	.01
103	Golden Fleece, g. s.	Colo..	600,000	600,000	1	.....	569,480	Feb.. 1897	.01
104	Golden Reward, g.	S. D..	1,000,000	100,000	10	.....	155,000	Feb.. 1898	.15
105	Grand Central, g. s.	Mex..	1,500,000	250,000	5	.....	840,000	Jan.. 1900	.48
106	Grand Central, g.	Utah.	250,000	250,000	1	.....	691,250	Nov.. 1900	.10
107	Grand Gulch, c.	Ariz..	250,000	240,000	1	.....	9,600	Apr.. 1900	.01
108	Grass Valley Expl	Cal...	100,000	30,000	2	.....	30,000	Jan.. 1900	.25
109	Greater Gold Belt, g.	Colo..	5,000,000	3,800,000	1	.....	76,000	June. 1900	.02
110	Gwin, g.	Cal..	1,000,000	100,000	10	25,000	176,500	Feb.. 1901	.10
111	Hall, c. s.	B. C..	1,625,000	267,609	5	.....	220,000	May.. 1899	.24
112	Hecla, l. s.	Idaho	250,000	1,000,000	¼	.....	100,000	Dec.. 1900	.02
113	Hecla Con., s. l.	Mont.	1,500,000	30,000	50	15,000	2,235,000	Feb.. 1901	.50
114	Helena, g.	Ore..	1,000,000	1,000,000	1	15,000	65,000	Feb.. 1901	.01
115	Hidden Treasure, g.	Cal..	360,000	36,000	10	.....	457,452	Sept.. 1900	.10
116	Holy Terror, g.	S. D..	500,000	500,000	1	.....	172,000	Jan.. 1900	.01
117	Home, g. (Leadville).	Colo..	2,000,000	2,000,000	1	25,000	125,000	Mar.. 1901	.25
118	Homestake, g.	S. D..	21,000,000	210,000	100	315,000	9,718,750	Mar.. 1901	.50
119	Horn Silver, g. s. c.z. l.	Utah.	10,000,000	400,000	25	.....	5,279,000	June. 1900	.05
120	Idaho, s. l.	B. C..	500,000	500,000	1	.....	292,000	Jan.. 1899	.05½
121	Independence Con., g.	Colo..	2,500,000	2,500,000	1	.....	100,000	Aug.. 1900	.04
122	Ingham Con., g.	Colo..	750,000	1,359,600	⅛	10,197	10,197	Feb.. 1901	.00¼
123	Iowa, g. s. l.	Colo..	$1,666,667	1,666,667	$1	$16,667	$153,500	Jan.. 1901	.01
124	Iron Mountain, g. s. l. i.	Mont.	5,000,000	500,000	10	.....	507,500	Apr.. 1898	.02
125	Iron Silver	Colo.	10,000,000	500,000	20	.....	2,550,000	Dec.. 1900	.10
126	Isabella, g.	Colo..	2,250,000	2,250,000	1	22,500	742,500	Mar.. 1901	.01
127	Jamison, g.	Cal..	3,900,000	390,000	10	.....	50,700	Apr.. 1899	.10
128	Klondike Bonanza, g.	Klon.	750,000	52,750	5	.....	50,000	Aug.. 1899	.24
129	La Fortuna, g.	Ariz..	250,000	250,000	1	37,500	953,000	Mar.. 1901	.05
130	Lake City, g	Colo..	50,000	50,000	1	.....	3,875	May . 1900	.01
131	Last Chance, s. l.	B. C..	500,000	500,000	1	.....	45,000	Apr.. 1899	.05
132	Last Dollar, g.	Colo..	1,500,000	1,500,000	1	30,000	150,000	Feb.. 1901	.02
133	Le Roi, g.	B. Col	5,000,000	200,000	5	.....	1,305,000	Nov.. 1899	1.20
134	Lightner, g.	Cal..	125,000	102,255	1	2,556	15,338	Feb.. 1901	.02½
135	Lillie, g.	Colo..	1,250,000	250,000	5	.....	349,183	Apr.. 1900	.05
136	Mammoth, g. s. c.	Utah	10,000,000	400,000	25	20,000	1,810,000	Feb.. 1901	.05
137	Marian Con., g. s. z, l. i.	Colo..	5,000,000	500,000	10	.....	202,000	Sept.. 1899	.01
138	Mary McKinney, g.	Colo..	1,000,000	1,000,000	1	30,000	210,000	Jan.. 1901	.03
139	Midget, g.	Colo..	1,000,000	1,000,000	1	.....	120,000	Dec.. 1900	.15
140	Modoc, g. s.	Colo..	500,000	500,000	1	15,000	220,000	Mar.. 1901	.01
141	Mollie Gibson, s. l.	Colo..	5,000,000	1,000,000	5	.....	4,080,000	Jan.. 1895	.05
142	Montana, Ltd., g. s.	Mont.	3,300,000	657,128	5	.....	453,700	Apr.. 1899	.12
143	Montana Ore Purchas'g.	Mont.	2,500,000	80,000	25	240,000	1,840,000	Jan.. 1901	3.00
144	Montreal, g.	Colo..	1,000,000	750,000	1	.....	7,500	Nov.. 1898	.01
145	Monument, g.	Colo..	300,000	300,000	1	3,000	21,124	Feb.. 1901	.01
146	Moon-Anchor, g.	Colo..	1,750,000	350,000	5	.....	261,000	Nov.. 1898	.07½
147	Moose, g.	Colo..	600,000	600,000	1	.....	186,000	Feb.. 1896	.01
148	Morning Star Drift, g.	Cal..	240,000	2,400	100	.....	854,490	Sept.. 1900	3.00
149	Morse, g.	Colo..	1,250,000	1,250,000	1	.....	215,650	May . 1899	.12
150	Moulton, g.	Mont.	2,000,000	400,000	5	.....	500,000	Oct.. 1893	.05
151	Mountain, c.	Cal ..	6,250,000	250,000	25	.....	2,373,750	Oct.. 1900	2.16
152	Mt. Diablo, s.	Nev..	5,000,000	50,000	100	.....	260,271	Jan.. 1900	.10
153	Mt. Rosa, g.	Colo..	1,000,000	1,000,000	1	.....	75,000	Dec.. 1899	.04
154	Mt. Shasta, g.	Cal..	100,000	20,000	5	.....	6,000	May . 1899	.30
155	Napa Con., q.	Cal ..	700,000	100,000	7	20,000	1,120,000	Apr.. 1901	.10
156	National Lead, com.	U. S..	15,000,000	149,054	100	.....	1,341,486	Mar.. 1900	1.00
157	National Lead, pf.	U. S .	15,000,000	149,040	100	260,820	10,840,100	Mar.. 1901	1.75
158	New Elkhorn, g.	Colo..	437,500	87,500	5	.....	1,325,000	June. 1898	.48
159	New Idria, q.	Cal..	500,000	100,000	5	40,000	290,000	Apr.. 1901	.20
160	New Jersey Zinc.	U. S..	10,000,000	100,000	100	400,000	3,200,000	Feb.. 1901	4.00
161	N. J. & Mo., z.	Mo...	250,000	2,500	100	.....	11,000	June.. 1900	2.00
162	New York, z.	Kas..	700,000	28,000	25	.....	6,500	Oct. 1899	.25
163	N.Y.& Hon Rosario, s.g.	C. A..	1,500,000	150,000	10	60,000	1,475,000	Mar.. 1901	.10
164	New Zealand, g.	Colo..	600,000	600,000	1	60,000	60,000	Jan.. 1901	.10
165	North Star, g.	B. C..	1,500,000	1,300,000	1	39,000	156,000	Mar.. 1901	.03
166	North Star, g.	Cal ..	5,000,000	250,000	10	.....	584,850	Nov.. 1899	.20
167	Nugget, g.	Colo..	1,000,000	991,000	1	9,910	64,910	Jan.. 1901	.01
168	Old Colony Zinc & Sm.	Mo...	1,100,000	69,909	10	17,477	85,753	Feb.. 1901	.25
169	Omega, g.	Colo..	1,500,000	1,200,000	1	.....	18,188	June. 1900	.01½
170	Ontario, s. l.	Utah.	15,000,000	150,000	100	.....	13,662,500	Apr.. 1900	.30
171	Original Empire, g.	Cal..	5,000,000	50,000	100	.....	530,000	Oct. 1899	1.00
172	Orphan Belle, g.	Colo..	1,000,000	1,000,000	1	.....	197,899	Dec.. 1899	.09
173	Osceola, c.	Mich.	2,500,000	93,000	25	.....	3,638,500	Dec.. 1900	3.00
174	Parrot, c.	Mont.	2,300,000	229,850	10	344,775	4,738,600	Jan.. 1901	1.50
175	Payne Con., s. l.	B. C..	3,000,000	2,600,000	1	78,000	1,438,000	Jan.. 1901	.03
176	Pennsylvania Con., g.	Cal..	5,150,000	51,500	100	.....	161,325	May.. 1900	.10
177	Pioneer, g.	Cal..	1,000,000	200,000	5	.....	62,500	Mar.. 1899	.12½
178	Plumas Eureka, g.	Cal ..	1,406,250	140,625	10	.....	2,797,544	Apr.. 1900	.60
179	Pointer, g.	Colo..	1,250,000	1,250,000	1	12,500	12,500	Mar.. 1901	.01
180	Portland, g.	Colo..	3,000,000	3,000,000	1	180,000	3,487,080	Jan.. 1901	.06
181	Princess, g.	Colo..	1,000,000	1,000,000	1	.....	55,000	Feb.. 1897	.00½
182	Queen Bess, s. l.	B. C..	500,000	100,000	5	.....	25,000	July.. 1899	.12½
183	Quicksilver, pref.	Cal..	4,300,000	43,000	100	.....	1,866,911	July.. 1900	.50
184	Quincy, c.	Mich.	2,500,000	100,000	25	300,000	12,270,000	Feb.. 1901	3.00
185	Rambler—Cariboo, s. l.	B.Col	1,250,000	1,250,000	1	.....	105,000	Apr.. 1900	.01
186	Reco. s. l.	B. C..	1,000,000	1,000,000	1	.....	287,500	Jan.. 1898	.10
187	Republic Con., g.	Wash	3,500,000	3,500,000	1	.....	382,500	Mar.. 1900	.01
188	Reward, g.	Cal..	1,000,000	100,000	10	.....	20,000	Aug.. 1899	.20
189	Rocco-Homestake, g.s.	Nev..	300,000	300,000	1	13,500	22,500	Mar.. 1901	.01½
190	Russell-Irwin, z.	Mo ..	250,000	25,000	10	.....	15,000	Oct.. 1899	.10
191	Sacramento, g.	Utah.	5,000,000	1,000,000	5	.....	138,000	Oct.. 1899	.00½
192	St. John del Rey, g.	Br'zil	3,000,000	425,482	5	.....	13,633,991	Dec.. 1900	.24
193	St. Joseph; l.	Mo...	3,000,000	250,000	10	37,500	3,347,000	Mar.. 1901	.15
194	Santa Rita, g.	Colo..	1,000,000	1,000,000	1	.....	4,000	July.. 1900	.02
195	Silver King, g. s. l.	Utah.	3,000,000	150,000	20	275,000	3,725,000	Mar.. 1901	.66⅔
196	Silver Shield, g.	Utah.	300,000	300,000	1	3,000	4,500	Feb.. 1901	.00½
197	Small Hopes, s.	Colo..	5,000 000	250,000	20	.....	3,325,000	Feb.. 1899	.10
198	Smuggler, s. l. z.	Colo..	1,000,000	1,000,000	1	90,000	1,820,000	Mar.. 1901	.03
199	Southern Boy, g.	Colo..	1,250,000	875,000	1	.....	17,500	May . 1900	.02
200	South Swansea, s. l.	Utah.	300,000	275,000	1	7,500	172,500	Mar.. 1901	.05
201	Squaw Mountain, g.	Colo..	2,000,000	2,000,000	1	.....	10,000	Nov.. 1899	.00½
202	Standard Con., g. s.	Cal..	2,000,000	178,394	10	17,839	3,981,941	Feb.. 1901	.10
203	Standard, s. l.	Idaho	500,000	500,000	1	25,000	2,215,000	Feb.. 1900	.05
204	Stratton's Independ'ce.	Colo..	5,500,000	1,000,007	5	120,001	2,885,353	Jan.. 1901	.12
205	Swansea, s. l.	Utah.	500,000	100,000	5	15,000	291,500	Mar.. 1901	.05
206	Tamarack, c.	Mich.	1,500,000	60,000	25	.....	7,200,000	Dec.. 1900	10.00
207	Tomboy, g.	Colo..	1,500,000	300,000	5	.....	956,000	Dec.. 1900	.24
208	Touraine, g.	Colo..	1,250,000	1,250,000	1	.....	87,500	Apr.. 1900	.07
209	Union, g.	Colo..	1,250,000	1,250,000	1	.....	395,244	Sept.. 1900	.25
210	Union, z. l.	Kas..	500,000	500,000	1	15,000	50,000	Mar.. 1901	.01
211	United, z. l., pref.	Mo...	6,000,000	14,938	25	.....	30,263	Oct.. 1900	.50
212	Utah, g.	Utah.	1,000,000	100,000	10	.....	181,000	Oct.. 1900	.02
213	Vindicator Con., g.	Colo..	1,500,000	1,500,000	1	27,500	521,000	Jan.. 1901	.02½
214	War Eagle Con., g. s. c.	B. C..	2,000,000	1,750,000	1	.....	545,250	Feb.. 1900	.01½
215	What Cheer, z.	Mo...	225,000	22,500	10	.....	11,250	May.. 1900	.20½
216	Wolverine, c.	Mich.	1,500,000	60,000	25	.....	510,000	Oct.. 1900	2.00
217	Yellow Aster, g.	Cal..	1,000,000	100,000	10	.....	459,410	Dec.. 1900	.10
218	Ymir, g.	B. C..	1,000,000	200,000	5	48,000	96,000	Jan. 1901	.24
219	Zoe, g.	Colo..	1,500,000	1,500,000	1	.....	7,500	Dec.. 1900	.00½
220									

This table is corrected up to March 18th. Correspondents are requested to forward changes or additions.

CHEMICALS, MINERALS, RARE ELEMENTS, ETC.—CURRENT WHOLESALE PRICES.

	Cust.	Meas.	Price.
Abrasives—			
Carborundum, f.o.b. Niagara Falls, Powd., F. FF. FFF	lb.		$0.12
Minute No. 1	"		.15
No. 15	"		1.00
Corundum, N. C.	"		.07@.10
Chester, Mass.	"		.04½@.05
Crushed Steel, f. o. b. Pittsburg	"		.05½
Emery, Turkish flour, in kegs	"		.03
Grains, in kegs	"		.04½@.05
Naxos flour, in kegs	"		.03
Grains, in kegs	"		.05
Chester flour, in kegs	"		.03
Grains, in kegs	"		.04½@.05
Peekskill flour, in kegs	"		.01¾
Grains, in kegs	"		.02½
Crude, ex-ship, N. Y.:			
Kuluk (Turkey)	lg. ton		22.00@24.00
Abbott (Turkey)	"		26.50@30.00
Naxos (Greek) h. gr.	"		32.00
Pumice Stone, Am. powd.	lb.		.01½@.02
Italian, powdered	"		.01½
Lump, per quality	"		.04@.40
Rottenstone, ground	"		.02¼@.03
Lump, per quality	"		.05@.14
Rouge, per quality	"		.10@.30
Steel Emery, f.o.b. Pittsburg	"		.07
Acids—Acetic, 30% pure	100 lbs.		3.50
30% ch. pure	"		6.00
80% pure	"		7.50
Benzoic, English	oz.		.12
German	lb.		.40
Boracic, crystals	"		.10½@.11
Powdered	"		.11@.11½
Carbolic, crude, 60%	gal.		.27
Cryst, 37% drums	lb.		.22
Liquid, 95%	gal.		.45
Carbonic, liquid gas	lb.		.12½
Chromic, crude	"		.20
Chem. pure	"		.50
Hydrochloric, ch. pure	"		.07
Hydrofluoric, 30%	"		.03
48%	"		.05
Best	"		.25
Nitric, chem. pure	"		.09
Sulphuric, chem. pure	"		.07
Sulphurous, liquid anhy.	"		.08
Tartaric, cryst	"		.29@.29½
Powder	"		.30@.30½
Alcohol—Grain	gal.		2.45
Refined wood, 95@97%	"		.60@.65
Purified	"		1.20@1.50
Alum—Lump	100 lbs.		1.75
Ground	"		1.85
Powdered	"		2.00
Chrome, com'l	"		2.75@4.00
Aluminum—Nitrate	lb.		1.50
Oxide, com'l, common	"		.06½
Best	"		.20
Pure	"		.80
Hydrated	100 lbs.		2.60
Sulphate, pure	"		1.50@1.75
Com'l	"		1.15@1.25
Ammonia—Aqua, 16°	lb.		.03
18°	"		.03¼
20°	"		.03¾
26°	"		.05½
Ammonium—			
Bromide, pure	"		.52@.53
Carbonate lump	"		.08¼@.08½
Powdered	"		.09½@.09¾
Muriate, gran.	"		.06
Lump	"		.09¼
Nitrate, white, pure (99%)	"		.10½
Phosphate, com'l	"		.10
Chem. pure	"		60
Antimony—			
Glass	"		.30@.40
Needle, lump	"		.05½@.06
Powdered, ordinary	"		.05¾
Best	"		.08½
Oxide, com'l white, 95%	"		.09½
Com'l white, 99%	"		.12
Com'l gray	"		.07
Sulphuret, com'l	"		.16
Arsenic—White	"		.04½@.04⅝
Red	"		.07@.07¼
Asphaltum—			
Ventura, Cal.	sh. ton		22.00
Cuban	lb.		.01½@.03¼
Egyptian, crude	"		.05½@.06
Trinidad, refined	lg. ton		35.00
San Valentino (Italian)	"		16.00
Seyssel (French) mastic	sh. ton		21.00
Gilsonite, Utah, ordinary	lb.		.03
Select	"		.03¾
Barium—Carbonate, Lump, 80@90%	sh. ton		25.00@27.50
92@98%	"		26.00@29.00
Powdered, 80@90%	lb.		.01¾@.02
Chloride, com'l	"		.02@.02¼
Chem. pure cryst	"		.05
Nitrate, powdered	"		.06
Oxide, com'l, hyd. cryst	"		.18
Hydrated, pure cryst.	"		.25
Pure, powd.	"		.27
Sulphate	"		.01
Barytes—Am. Cr., No. 1	sh. ton		9.00
Crude, No. 2	"		8.00
Crude, No. 3	"		7.75
German, gray	"		14.50
Snow white	"		17.00
Bauxite—Ga. mines: 1st grade	lg. ton		5.00
Second grade	"		4.25@4.50
Ala., f.o.b., 1st grade	"		5.00
Second grade	"		4.25@4.50
Bismuth—Subnitrate	lb		1.75
Subcarbonate	"		1.95
Bitumen, "B"	"		.03½
"A"	"		.05
"A" and "B"	"		.04½
Bone Ash	"		.03¼@.03½

	Cust.	Meas.	Price.
Borax	lb.		$ .07¼@.07½
Calcined	"		.25
Bromine	"		.40
Cadmium—Metallic	"		1.40
Sulphate	100 lbs.		2.00@2.50
Calcium—Acetate, gray	"		1.55
" brown	"		1.05
Carbide, ton lots, f. o. b. Niagara Falls, N.Y.	sh. ton		80.00
Carbonate, ppt.	lb.		.05
Chloride, com'l	100 lbs.		.75
Best	"		.80
Sulphite	lb.		.05
Cement—			
Portland, Am., 400 lbs.	bbl.		1.50@2.00
Belgium	"		1.95@2.20
English	"		2.45@2.55
German	"		2.30@2.70
"Rosendale," 300 lbs.	"		1.05
Sand cement, 400 lbs.	"		1.55@1.95
Slag cement, imported	"		1.65
Ceresine—			
Orange and Yellow	lb.		.12
White	"		.14
Chalk—Lump, bulk	sh. ton		2.15@2.25
Ppt. per quality	lb.		.03¾@.06
Chlorine—Liquid	"		.30
Water	"		.15
Chrome Ore—			
(50% ch.) ex-ship, N. Y.	lg. ton		24.00
Sand, f.o.b. Baltimore	"		33.00
Bricks, f.o.b., Pittsburg	M		175.00
Clay, China—Am. com., ex-dock, N. Y.	lg ton		8.00
Am. best, ex-dock, N. Y.	"		9.00
English, common	"		12 00
Best grade	"		17 00
Fire Clay, ordinary	sh. ton		4.25
Best	"		6.00
Slip Clay	"		7.00
Coal Tar Pitch	gal.		.08
Cobalt—Carbonate	lb.		1.75
Nitrate	"		1.50
Oxide—Black	"		2.26@2.30
Gray	"		2.28@2.40
Smalt, blue ordinary	"		.10
Best	"		.20
Copperas	100 lbs.		.40@.45
Copper—Carbonate	lb.		.18
Chloride	"		.25
Nitrate, crystals	"		.35
Oxide, com'l	"		.19
Cream of Tartar—Crys.	"		.19¼@.19½
Powdered	"		.19¾@.20
Cryolite	"		.06½
Explosives—			
Blasting powder, A. 25 lb. keg			2.50
Blasting powder, B.	"		1.25
"Rackarock," A.	lb.		.25
"Rackarock," B.	"		.18
Judson R.R. powder	"		.10
Dynamite (20% nitro-glycerine)	"		.13
(30% nitro-glycerine)	"		.14
(40% nitro-glycerine)	"		.15
(50% nitro-glycerine)	"		.16½
(60% nitro-glycerine)	"		.18
(75% nitro-glycerine)	"		.21
Glycerine for nitro (32 2-10° Be.)	"		.13¼@.13½
Feldspar—Ground	sh. ton		8.00@9.00
Fluorspar—			
Am. lump, 1st grade	"		14.40
2d grade	"		13.90
Gravel & crushed, 1st g	"		13.40
2d grade	"		12.90
Ground, 1st grade	"		18.00
Foreign, lump	"		8.00@12.00
Ground	"		11.50@14.00
Fuller's Earth—Lump,	100 lbs.		.75
Powdered	"		.85
Refined lump	"		1.25
Graphite—Am. f. o. b. Providence, R.I. lump	sh. ton		8.00
Pulverized	"		30.00
German, lump	lb.		.01¼
Pulverized	"		.01½@.02
Ceylon, common	"		.03½
Pulverized	"		.04@.08
Italian, pulv	"		.01¼
Gypsum—Ground	sh. ton		8.00@8.50
Fertilizer	"		7.00
Rock	lg. ton		4.00
English and French	"		14.00@16.00
Infusorial Earth—Ground, American, best	"		20.00
French	"		37.50
German	"		40.00
Iodine—Crude	100 lbs.		2.45
Iron—Muriate	lb.		.05
Nitrate, com'l	"		.01¼
True	"		.03½
Oxide, pure copperas col	"		.05@.10
Purple-brown	"		.02
Venetian red	"		.01@.01½
Scale	"		.01@.03
Kaolin—(See Clay, China).			
Kryolith—(See Cryolite.)			
Lead—Acetate, white	lb.		.07
Com'l, broken	"		.06¼
Brown	"		.05½
Nitrate, com'l	"		.06½
" gran	"		.8¼
Lime—Com., ab. 250 lbs	bbl.		.70
Finishing	"		.80
Magnesite—Greece, Crude (95%)	lg. ton		6.50@7.00
Calcined	sh. ton		14.00@15.00
Bricks	M.		170.00
Am. Bricks, f o.b., Pittsburg	"		175.00
Magnesium—			
Carbonate, light, fine pd	lb.		.03¾
Blocks	"		.06@.09
Chloride, com'l	"		.01¾
Fused	"		.20

	Cust.	Meas.	Price.
Magnesium—			
Nitrate	lb.		$0.60
Sulphate	100 lbs.		.90
Manganese—Oxide-pow'd 70@75% binoxide	lb.		.01¼@.01½
Crude, pow'd 75@85% binoxide	"		.01½@.02½
85@90% binoxide	"		.02½@.03¼
90@95% binoxide	"		.02¾@.05½
Carbonate	"		.16@.20
Chloride	"		.04
Ore, 50%, Foreign	unit		.26¾
Domestic	"		.30
Marble—Flour	sh. ton		6.00@7.00
Mercury—Bichloride	lb.		.77
Mica—N. Y. gr'nd, coarse	"		.03@.04
Fine	"		.04@.05
Sheets, N. C., 2x4 in.	"		.30
3x3 in	"		.80
3x4 in	"		1.50
4x4 in	"		2.00
6x6 in	"		3.00
Scrap, f.o.b., Dillsboro, N. C.	sh. ton.		25.00
Mineral Wool—			
Slag, ordinary	sh. ton		19.00
Selected	"		25.00
Rock, ordinary	"		32.00
Selected	"		40.00
Monazite—92%	"		140.00
Nickel—Oxide, No. 1	lb.		1.00
No. 2	"		.60
Sulphate	"		.20@.21
Oils—Black, reduced 29 gr.: 25@30 cold test	gal.		.09¾@.10¼
15, cold test	"		.10¾@.11¼
Zero	"		.11¾@.12¾
Summer	"		.09¼@.09¾
Cylinder, dark steam ref	"		.08¾@.10¾
Dark filtered	"		.11¾@.16¼
Light filtered	"		.14¾@.17¾
Extra cold test	"		.21¾@.26¾
Gasoline, 86°@90°	"		.16@.21
Naphtha, crude 68@72°	bbl.		9.60
"Stove"	gal.		.12
Linseed, domestic raw	"		.62@.64
Boiled	"		.65
Calcutta, raw	"		.85
Graphite, lubricating, Am. dry			
In oil			
Axle grease			
Wood grease			
Ozokerite	lb.		.10@.12
Paints and Colors—			
Chrome green, common	"		.05
Pure	"		.16
Yellow, common	"		.10¼
Best	"		.25
Silica Graphite, thick	"		.12
Thinned	gal.		1.15
Lampblack, com'l	lb.		.03
Refined	"		.07
Litharge, Am. powd.	"		.05½@.06
English flake	"		.08
Glassmakers	"		.07½
Metallic, brown	sh. ton		19.00
Red	"		16.00
Ocher, Am. common	"		9.25@10.00
Best	"		21.25@25.00
Dutch, washed	lb.		.04¾
French, washed	"		.01¼@.02
Orange mineral, Am.	"		.07¾
Foreign, as to make	"		.07¾@.08¾
Paris green, pure, bulk	"		.12
Red lead, American	"		.06
Foreign	"		.07¾
Shellac, "D. C."	"		.30
Native	"		.15
Turpentine, spirits	gal.		.40½
Ultramarine, best	lb.		.25
Vermilion, Amer. lead	"		.14@.16
Quicksilver, bulk	"		.70
Foreign	"		.70@.90
White lead, Am., dry	"		.05¼
American, in oil	"		.06½
English, in oil	"		.07¾
Whiting, common	100 lbs.		.42
Gilders	"		.54
Zinc white, Am., ex. dry	lb.		.04⅝@.04⅞
American, red seal	"		.06½
Green seal	"		.07
Foreign, red seal, dry	"		.06½@.06⅝
Green seal, dry	"		.07¼@.09⅝
Potash—Caustic, ord	"		.04½@.05
Elect. (90%)	"		.06½
Potassium—			
Bicarbonate cryst	"		.08¼
Powdered or gran	"		.14
Bichromate, Am.	"		.08¼
Scotch	"		.08½
Carbonate, hydrated	"		.04½
Calcined	"		.04
Chromate	"		.35
Cyanide (98@99%)	"		.27
Iodide, bulk	"		2.30
Permanganate, pure cr.	"		.11@.11¼
Prussiate, yellow	"		.14⅝@.15
Red	"		.37
Silicate	"		.06
Sulphide, com'l	"		.10
Quartz—(See Silica).			
Rosin—			
Com. strained (280 lbs.)	bbl.		1.65
Best strained	"		2.90
Medium	"		1.80
Salt—N Y com fine	sh. ton		2.00
N. Y. agricultural	"		1.50
Saltpeter—			
Crude	100 lbs.		3.50
Refined	"		4.25
Silica—Best foreign	lg. ton		10 00@11.00
Ground quartz, ord	sh. ton		6.00@8.00
Best	"		12.00@13.00
Lump quartz	"		2.50@4.00
Glass sand	"		2.75
Silicon—Carbide	lb.		.05

	Cust.	Meas.	Price.
Silver—			
Chloride	oz.		$0.65
Nitrate	"		.40
Oxide	"		.85@1.10
Slate—Ground, black	sh. ton		7.50@8.75
Ground, red and olive	"		20.00
Sodium—Acetate, com'l	lb.		.04¼
Bichromate	"		.06¼
Chlorate, com'l	"		.09@.09¼
Hyposulphite, Am.	100 lbs.		1.80
German	"		2.00
Nitrite, 96@98%	lb.		.08
Peroxide	"		.45
Phosphate	"		.02½
Prussiate	"		.12½
Silicate, conc	"		.05
com'l	"		.01
Sulphate, com'l	100 lbs.		.70
Gran., puri'd	lb.		.03
Sulphide	"		.01¾
Sulphite crystals	"		.02½
Tungstate, com'l	"		.35
Strontium—Nitrate	"		.08
Sulphur—Roll	100 lbs.		1.75
Flour	"		1.80
Flowers, sublimed	"		2.05
Talc—N. C, 1st grade	sh. ton		13.75
N. Y., Fibrous	"		8.00@9.00
French, best	100 lbs.		1.25
Italian, best	"		1.62½
Tar—Regular	bbl.		1.90
Oil barrels	"		3.75
Tin—Bichloride	lb.		.09½@.10
Crystals	"		.20
Muriate, 36°	"		.09
52°	"		.15
Oxide, white, ch. pure	"		.40
Uranium—Oxide	"		2.25@3.00
Zinc—Metallic, ch. pure	"		.09@.10
Carbonate	"		.15
Chloride	"		.05
Dust	"		.06¾@.07
Sulphate	"		.02@.02¼

THE RARE ELEMENTS.

Prices given are at makers' works in Germany, unless otherwise noted.

	Cust.	Meas.	Price.
Barium—Amalgam	grm.		$1.19
Electrol	"		5.71
Beryllium—Powder	"		5.95
Crystals	"		9.04
Nitrate (N Y.)	oz.		1.50
Boron—Amorphous, pure	grm.		.19
Crystals, pure	"		1.43
Nitrate (N. Y.)	lb.		1.50
Cadmium—Sticks	kg.		1.55
Sheets	"		2.83
Granulated	"		2.38
Powder	"		1.90
Calcium—Elect	grm.		4.28
Cerium—Fused	"		2.02
Nitrate (N. Y.)	oz.		1.25
Chromium—Fused, Elect.	kg.		5.95
Pure powder 95%	"		1.79
Chem. pure cryst	grm.		.20
Cobalt—(98@99%)	kg.		6.66@8.33
Pure	"		30.94
Didymium—Powd.	grm.		3.81
Fused, Elect.	"		5.47
Nitrate (N. Y.)	oz.		2.50
Erbium	grm.		3.09
Nitrate (N. Y.)	oz.		2.50
Germanium—Powder	grm.		33.32
Fused	"		35.70
Glucinum—Powder	"		5.95
Crystals	"		9.04
Nitrate (N. Y.)	oz.		2.75
Indium	grm.		3.57
Iridium—Fused	"		1.07
Powder	"		.95
Lanthanum—Powder	"		4.28
Electrol, in balls	"		9.04
Nitrate (N. Y.)	oz.		2.25
Lithium	grm.		2.38
Nitrate (N. Y.)	oz.		.60
Magnesium—Ingot	kg.		6.19
In wire or ribbon	"		9.99
Powdered	"		5.95@7.14
Sheet	"		9.04
Molybdenum—Fused	grm.		.15
Powder, 95%	kg.		2.62
Niobium	grm.		3.81
Osmium	"		.94
Palladium—Wire	"		.86
Sponge	"		.62
Potassium—In balls	kg.		17.85
Rhodium	grm.		2.38
Rubidium—Pure	"		4.76
Ruthenium—Powder	"		2.38
Rutile—Crude	kg.		.43
Selenium—Com'l powder	"		26 28
Sublimed powder	"		35.70
Sticks	"		28.56
Silicium—Com'l	"		28.56
Chem. pure crystals	"		59.50
Amorphous	"		27.36
Sodium (N. Y.)	lb.		.65
Strontium—Electrol	grm.		6.19
Tantalium—Pure	"		3.57
Tellurium—Ch. p. sticks	kg.		107.00
Chem. pure powder	"		83.30
Thallium	"		26.18
Thorium—Nitrate 49@50% (N. Y.)	lb.		5.00
Titanium	kg.		47.60
Uranium	"		190.40
Nitrate (N. Y.)	oz.		.25
Wolfram—Fused, elect.	kg.		238.00
Powder, 95@98%	"		1.43
Chem. pure powder	"		6.43
Yttrium	grm.		3.33
Nitrate (N. Y.)	oz.		2.75
Zirconium—Com'l	kg.		119.00
Nitrate (N. Y.)	oz.		.75

NOTE.—These quotations are for wholesale lots in New York unless otherwise specified, and are generally subject to the usual trade discounts. This table is revised up to Feb. 16. Readers of the ENGINEERING AND MINING JOURNAL are requested to report any corrections needed, or to suggest additions which they may consider advisable. See also Market Reviews.